

## Appendix B for KSEM210700113902

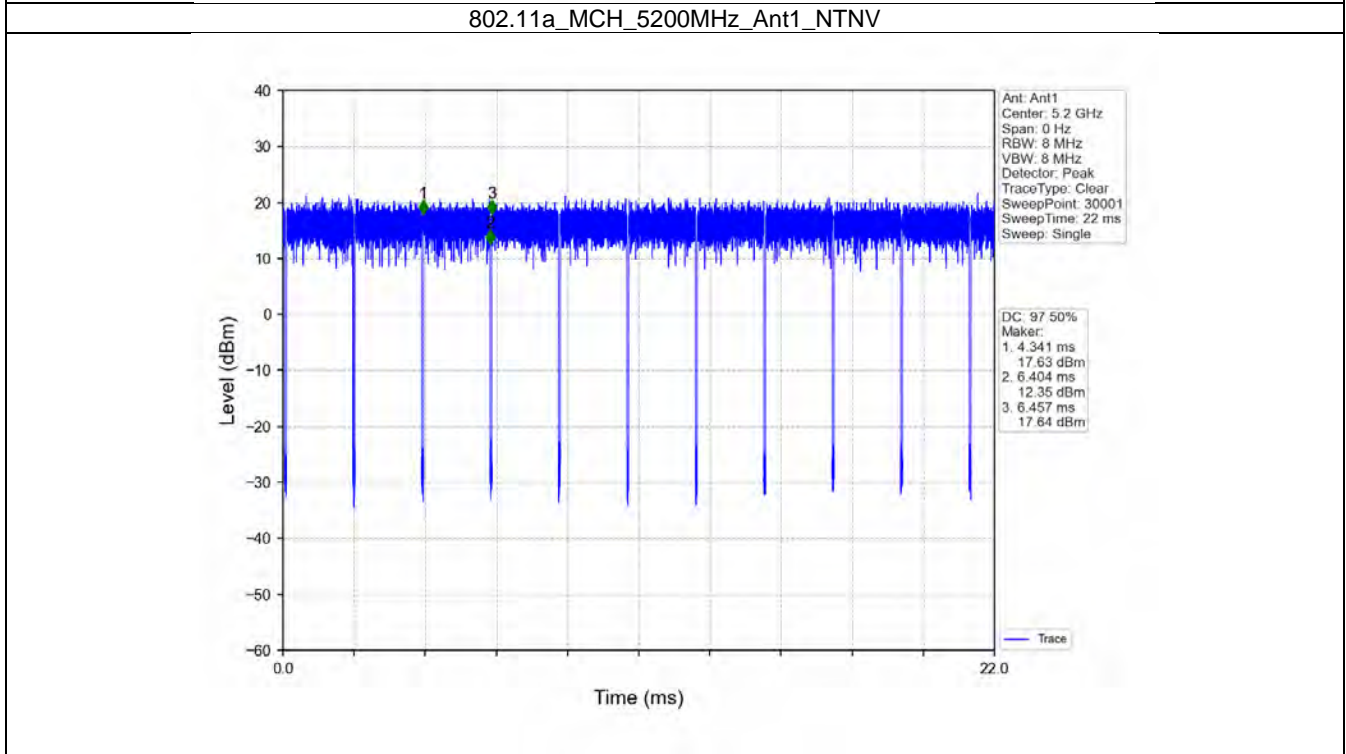
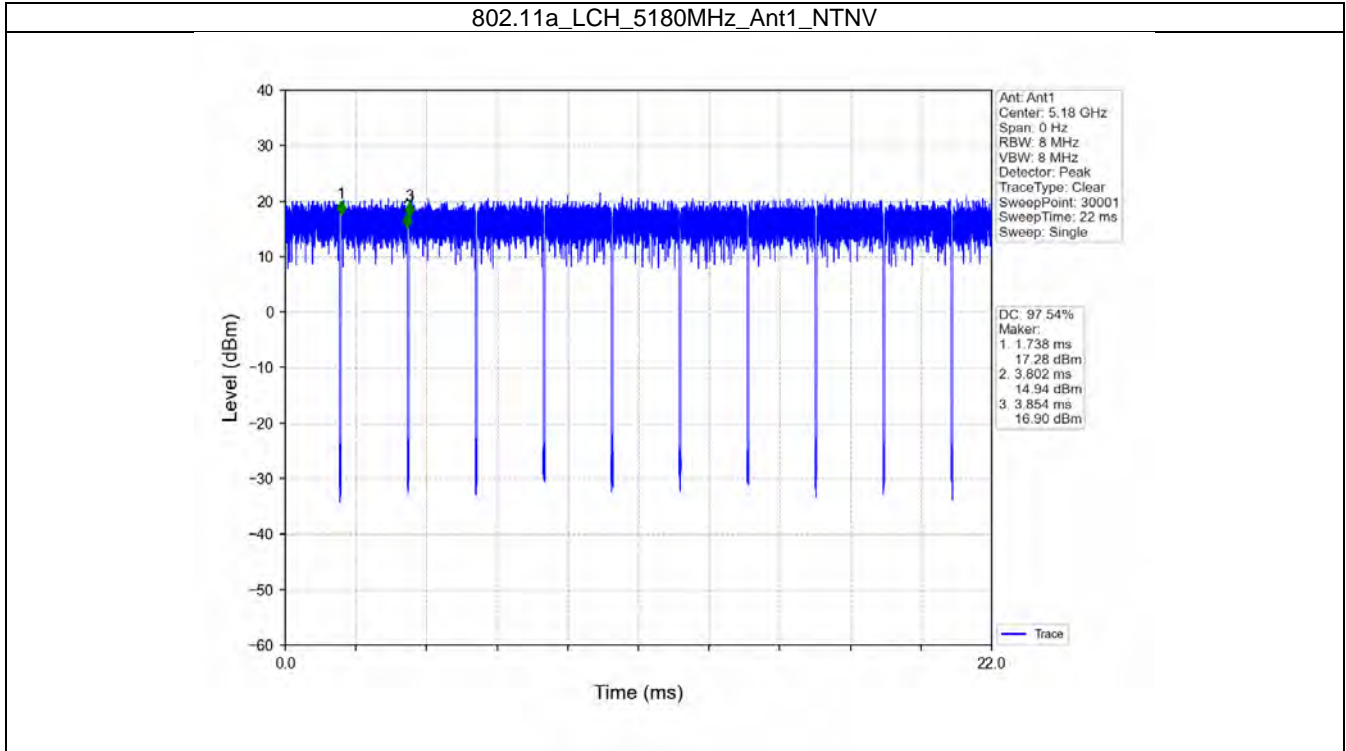
### 1. Duty Cycle

#### 1.1 Ant1

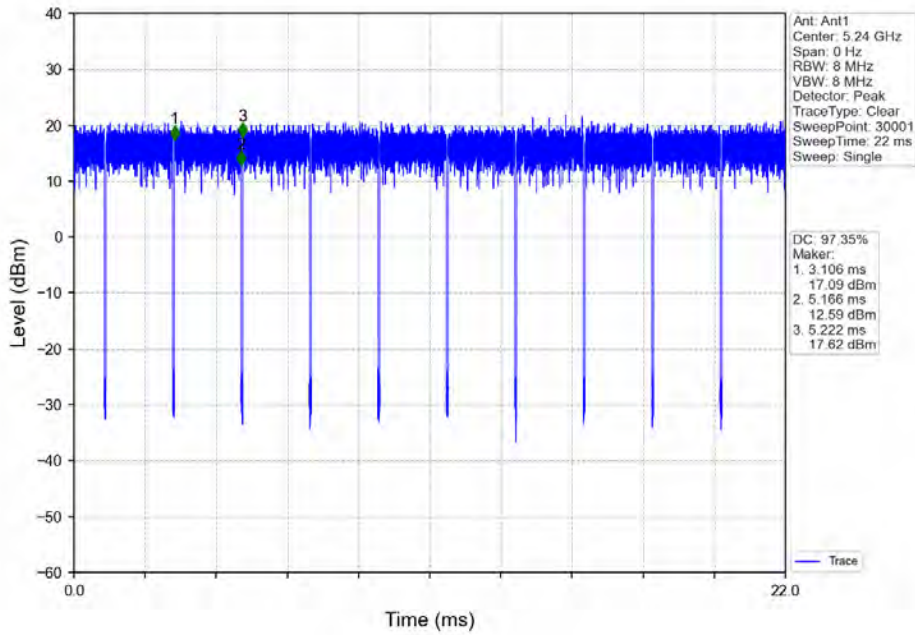
##### 1.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.064	2.116	97.54	0.11	0.03
		5200	2.063	2.116	97.50	0.11	0.03
		5240	2.060	2.116	97.35	0.12	0.03
		5745	2.064	2.117	97.50	0.11	0.03
		5785	2.064	2.117	97.50	0.11	0.03
802.11n (HT20)	MIMO	5180	1.924	1.976	97.37	0.12	0.03
		5200	1.921	1.976	97.22	0.12	0.03
		5240	1.924	1.977	97.32	0.12	0.03
		5745	1.924	1.976	97.37	0.12	0.03
		5785	1.922	1.977	97.22	0.12	0.03
802.11n (HT40)	MIMO	5190	0.948	1.000	94.80	0.23	0.00
		5230	0.945	1.000	94.50	0.25	0.00
		5755	0.948	1.000	94.80	0.23	0.03
		5795	0.946	1.001	94.51	0.25	0.03
		5180	1.932	1.984	97.38	0.12	0.03
802.11ac (VHT20)	MIMO	5200	1.929	1.984	97.23	0.12	0.03
		5240	1.929	1.985	97.18	0.12	0.03
		5745	1.930	1.985	97.23	0.12	0.03
		5785	1.930	1.985	97.23	0.12	0.03
		5825	1.930	1.985	97.23	0.12	0.03
802.11ac (VHT40)	MIMO	5190	0.949	1.004	94.52	0.24	0.03
		5230	0.952	1.004	94.82	0.23	0.00
		5755	0.949	1.004	94.52	0.24	0.03
		5795	0.949	1.004	94.52	0.24	0.03
802.11ac (VHT80)	MIMO	5210	0.464	0.516	89.92	0.46	0.06
		5775	0.462	0.517	89.36	0.49	0.06

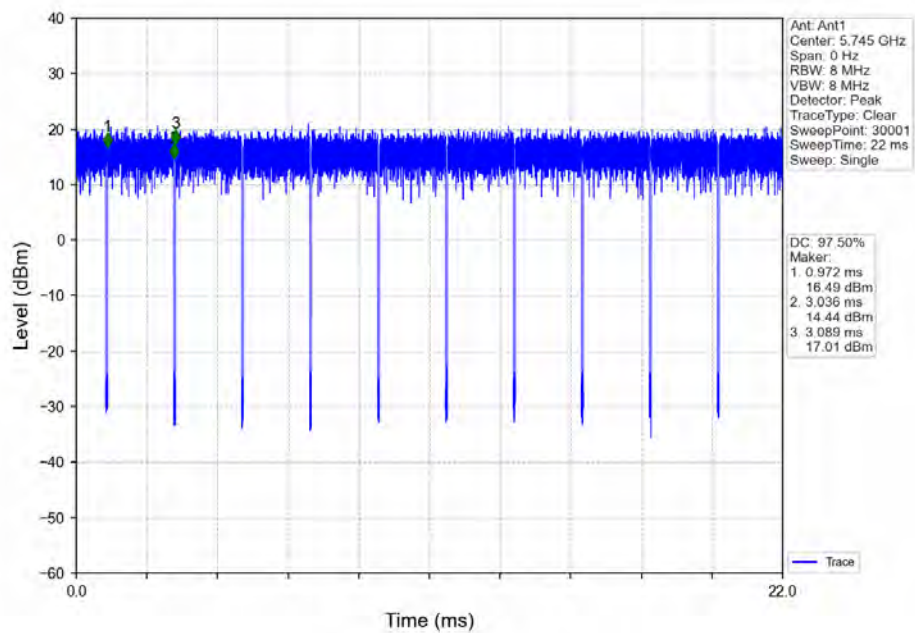
### 1.1.2 Test Graph



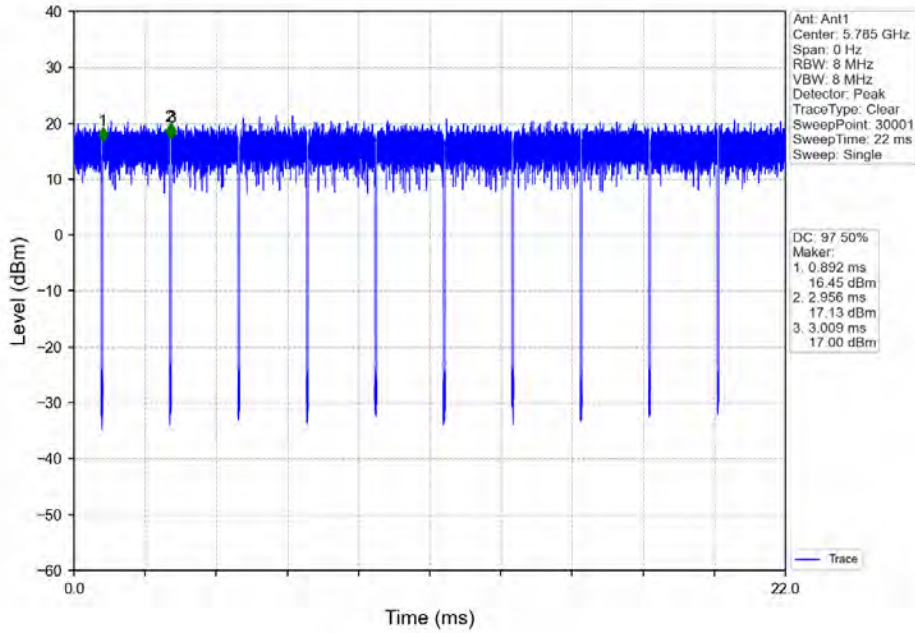
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



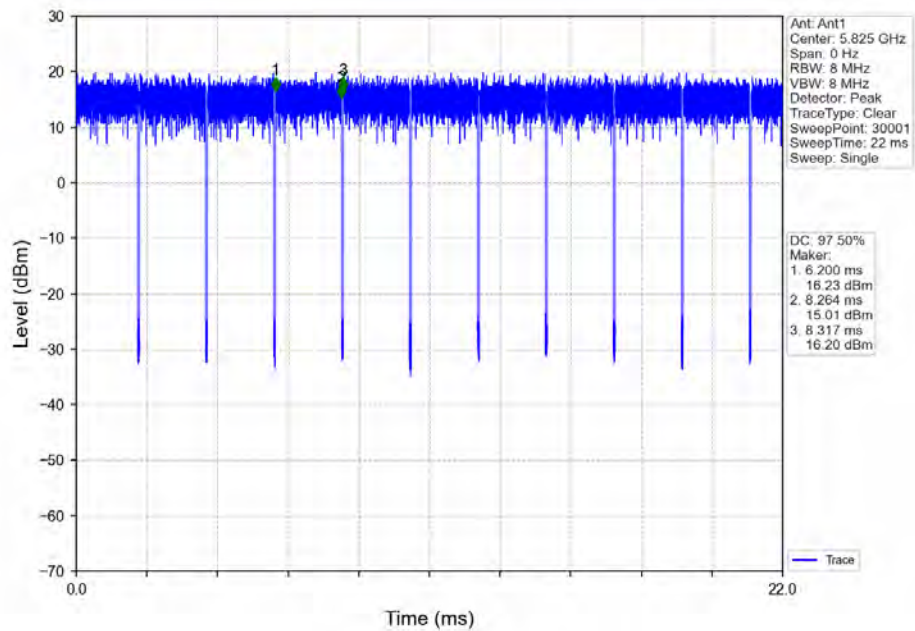
802.11a\_LCH\_5745MHz\_Ant1\_NTNV



802.11a\_MCH\_5785MHz\_Ant1\_NTNV

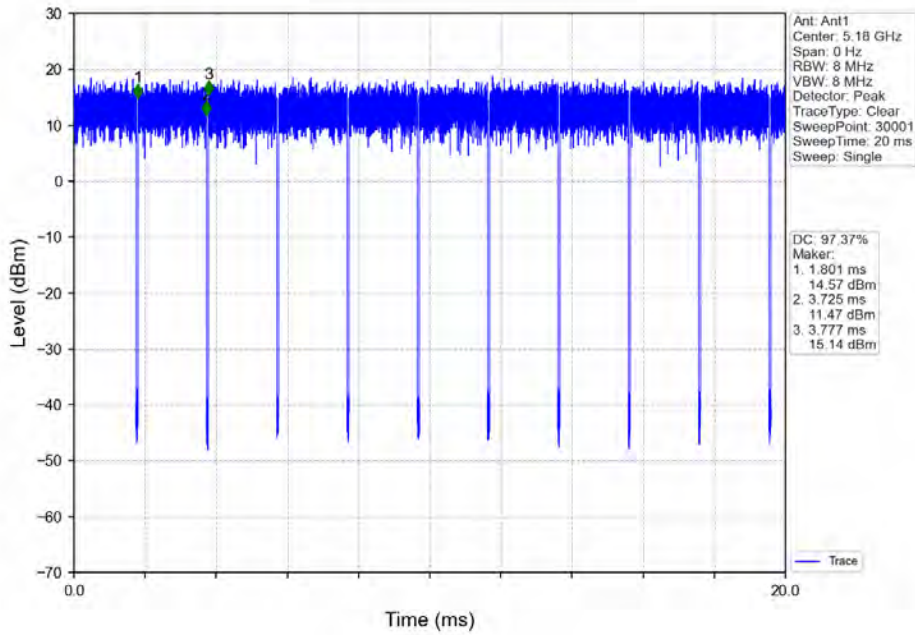


802.11a\_HCH\_5825MHz\_Ant1\_NTNV

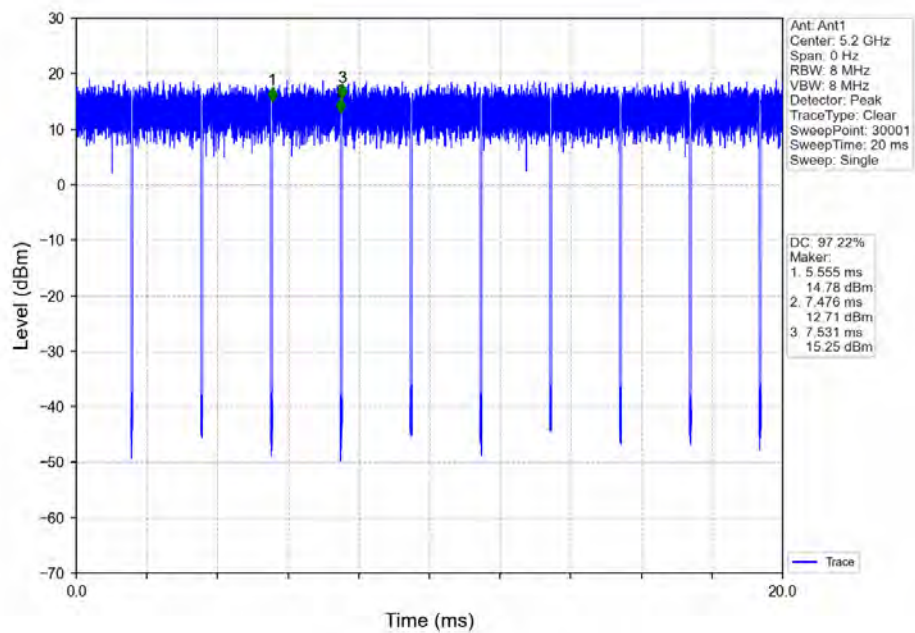




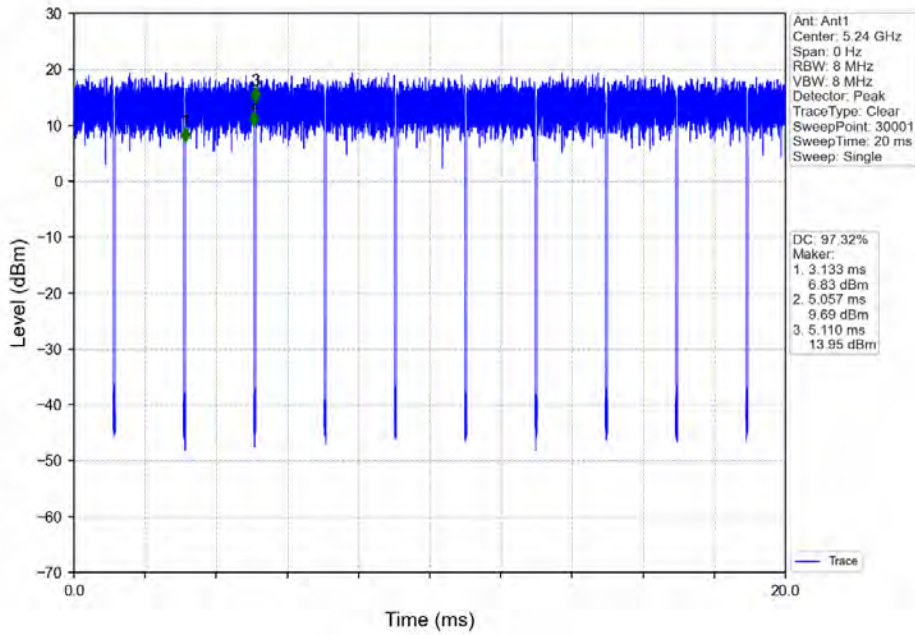
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



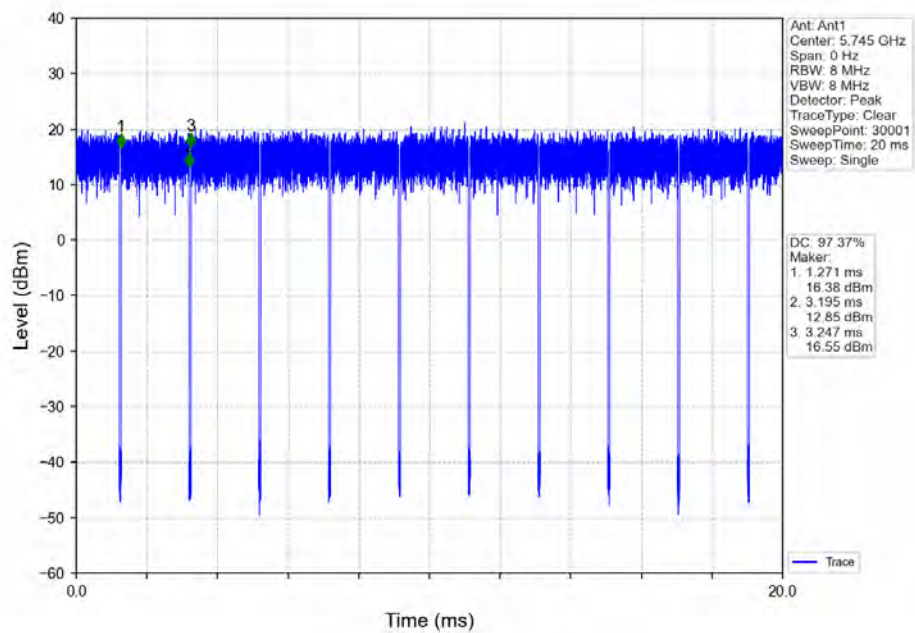
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



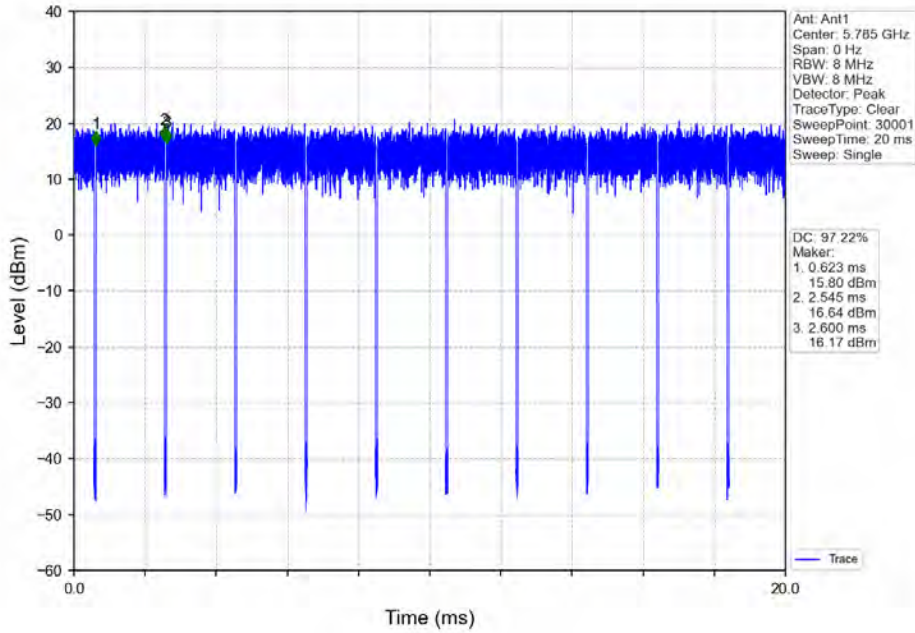
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



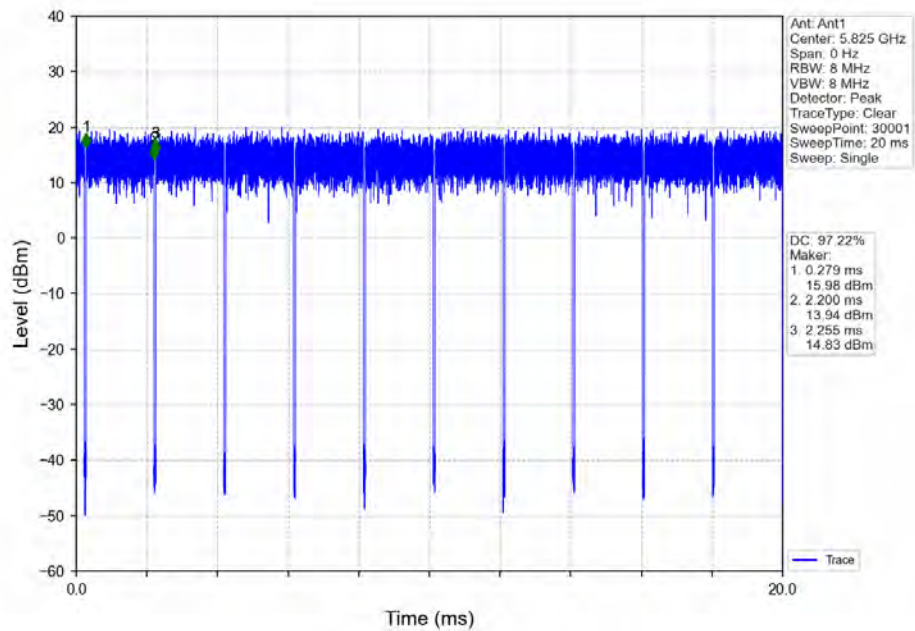
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

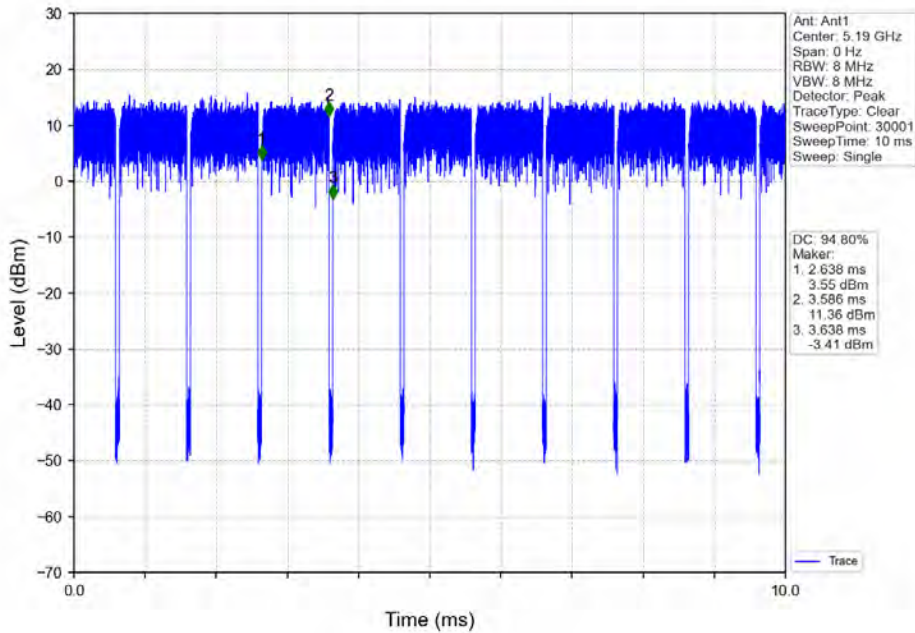


802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV

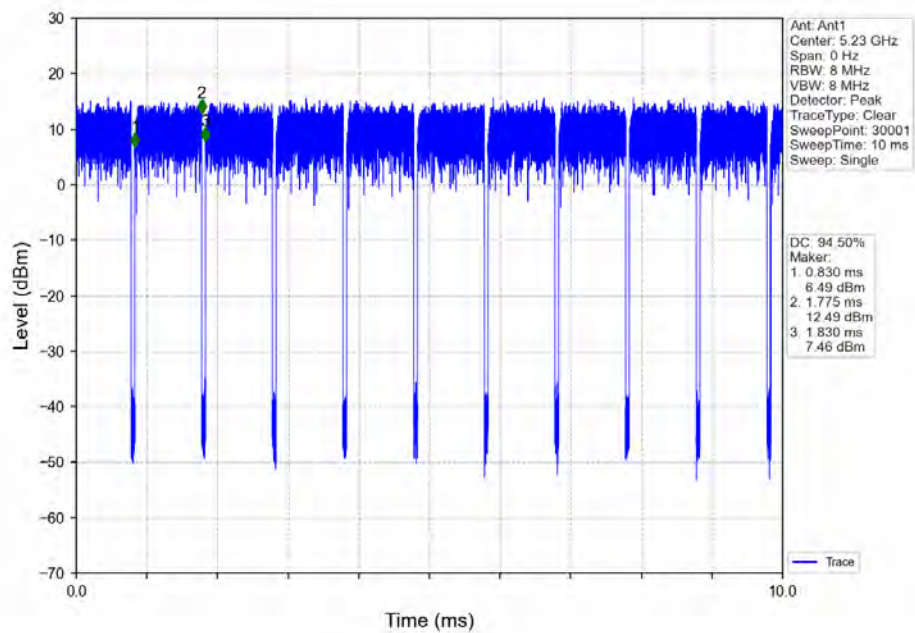




802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV

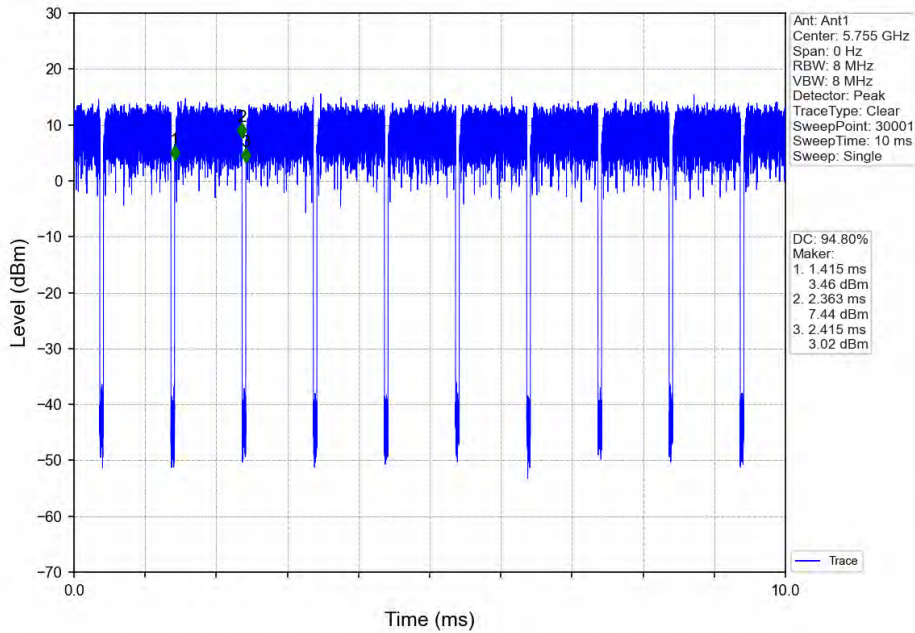


802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

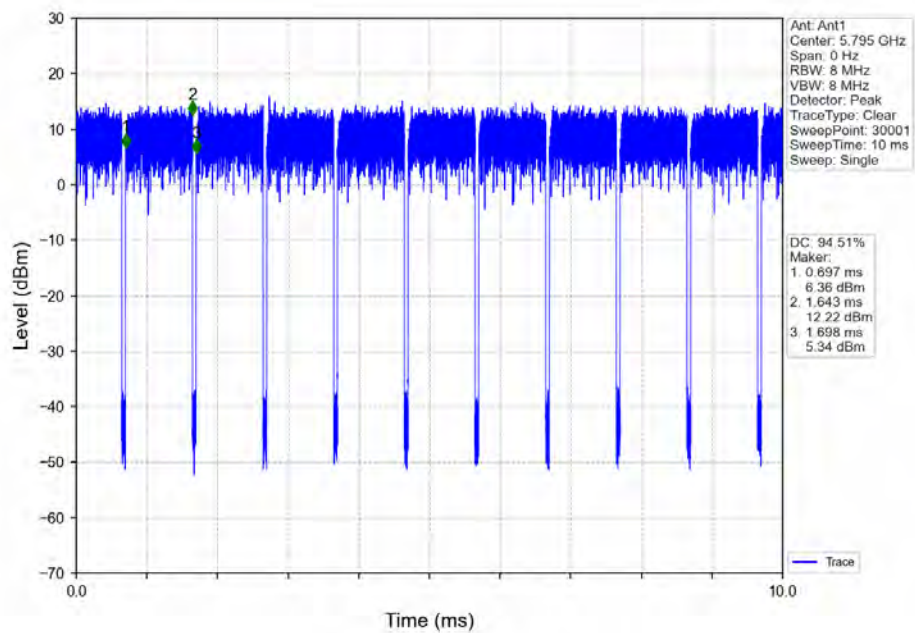




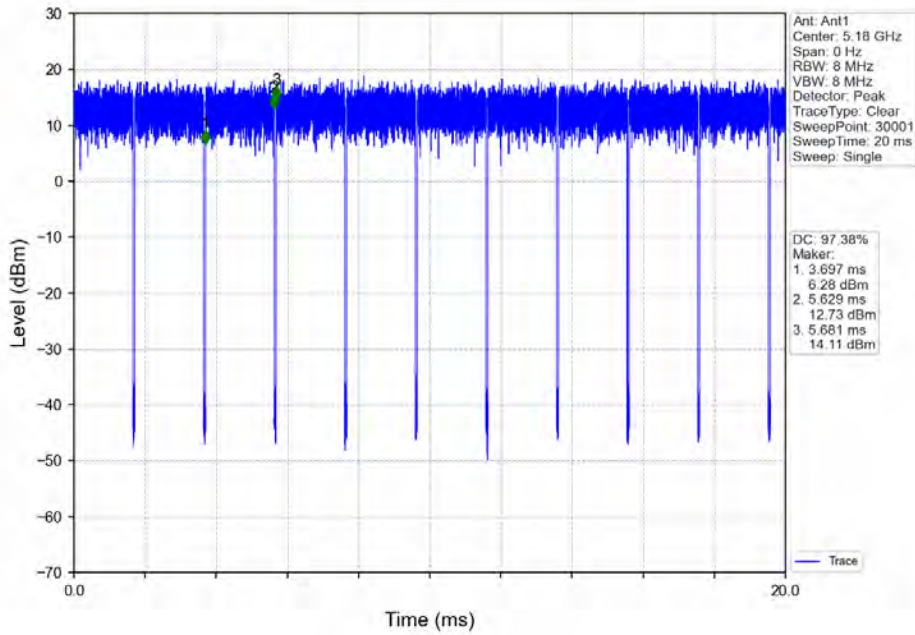
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



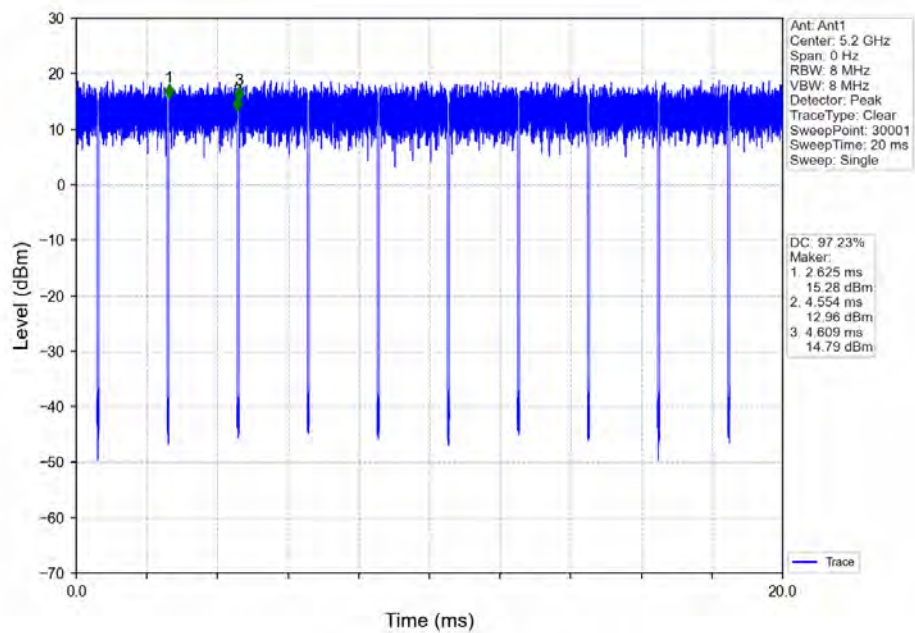
802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



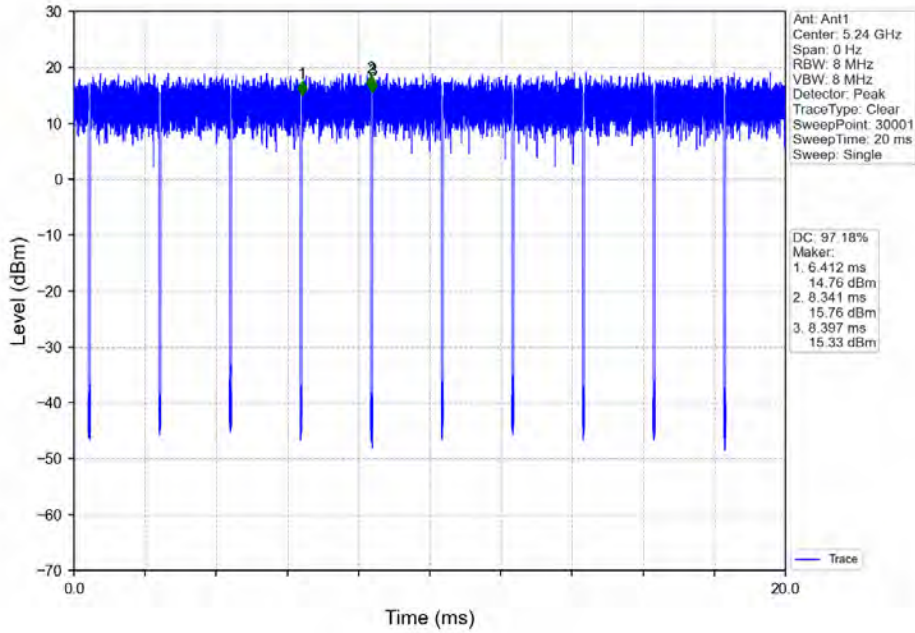
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



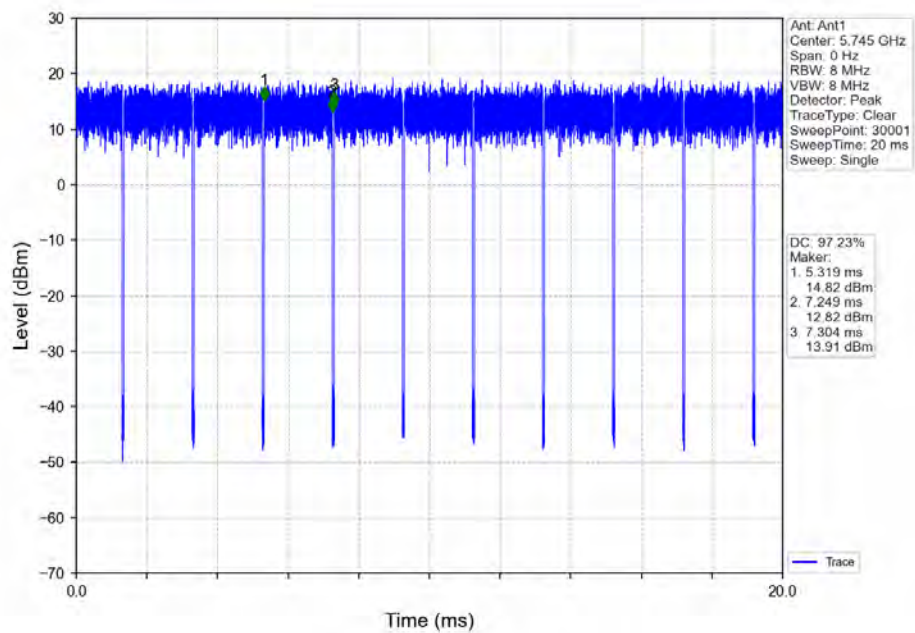
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV

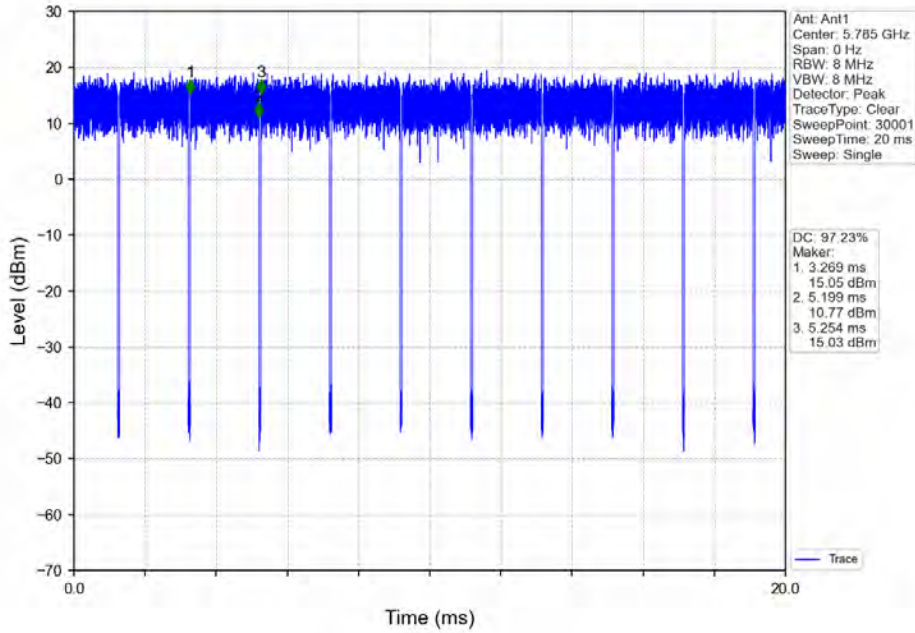


802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV

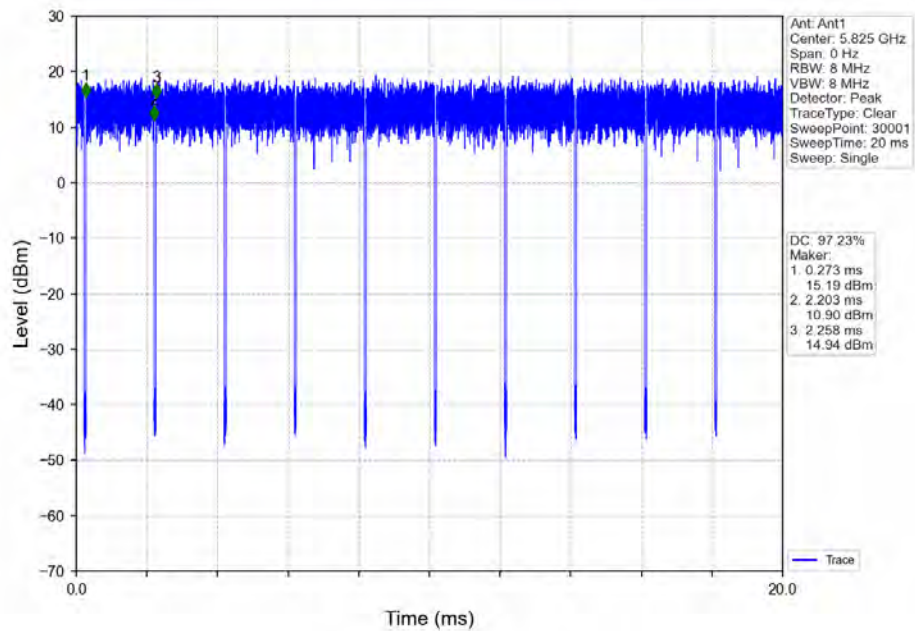




802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV

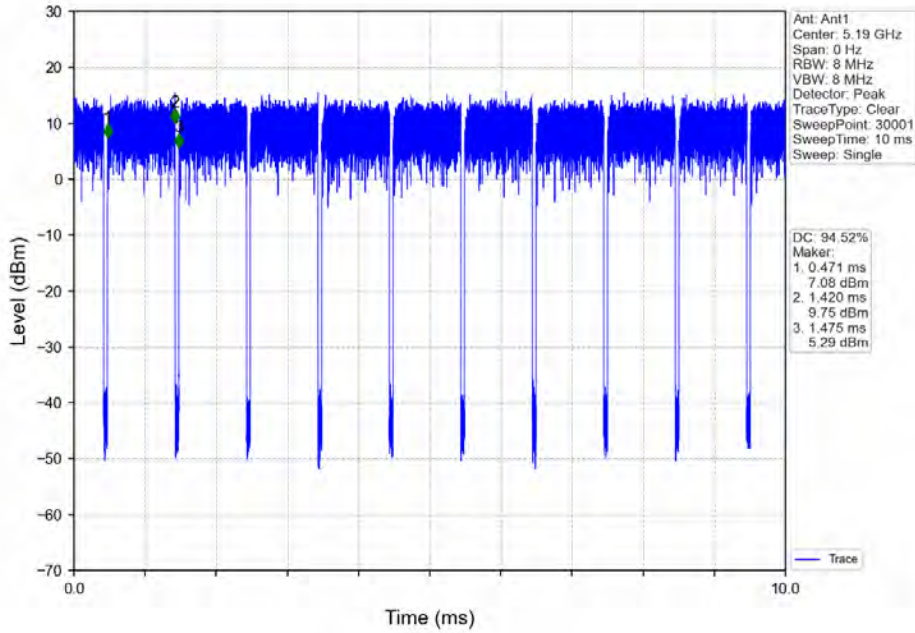


802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

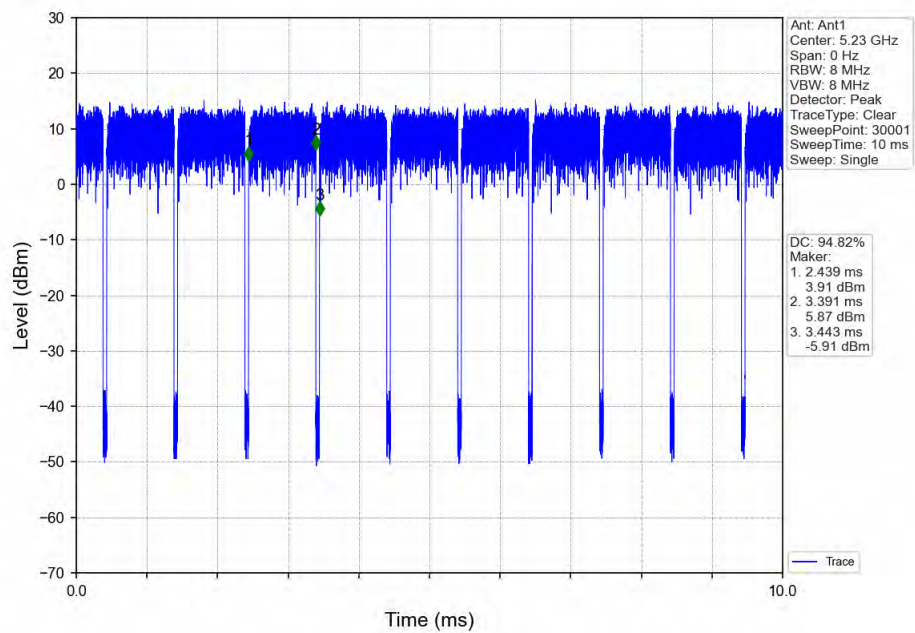




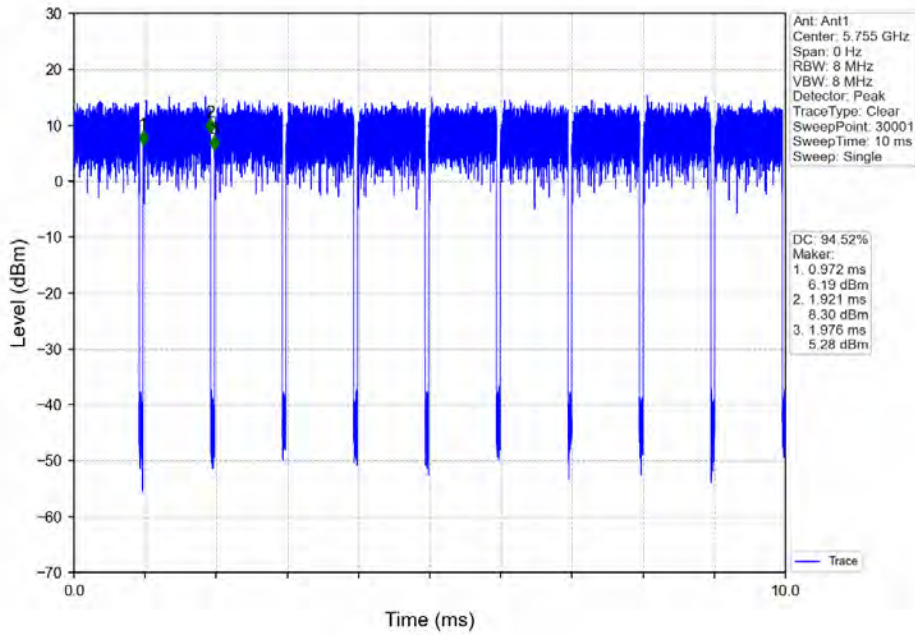
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



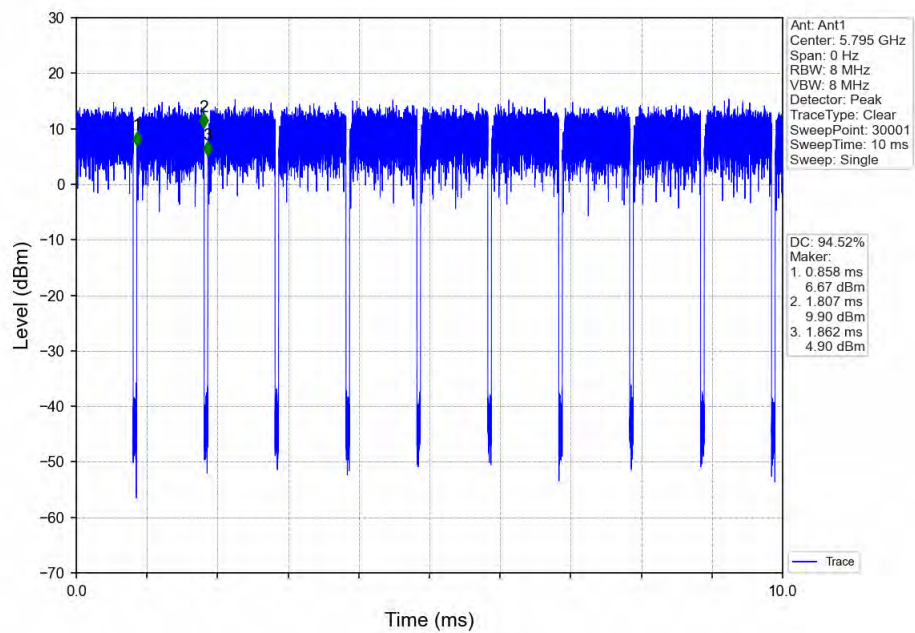
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



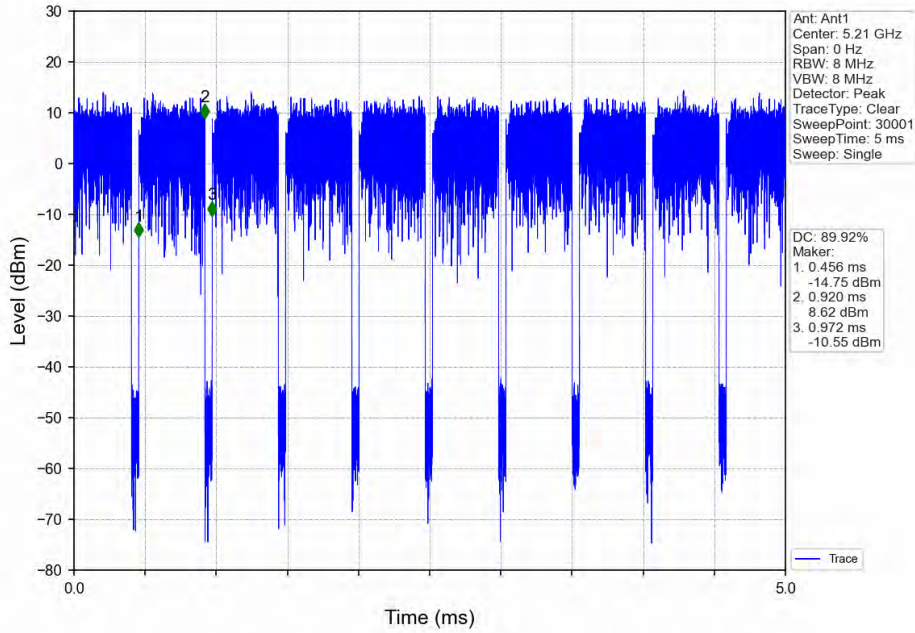
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



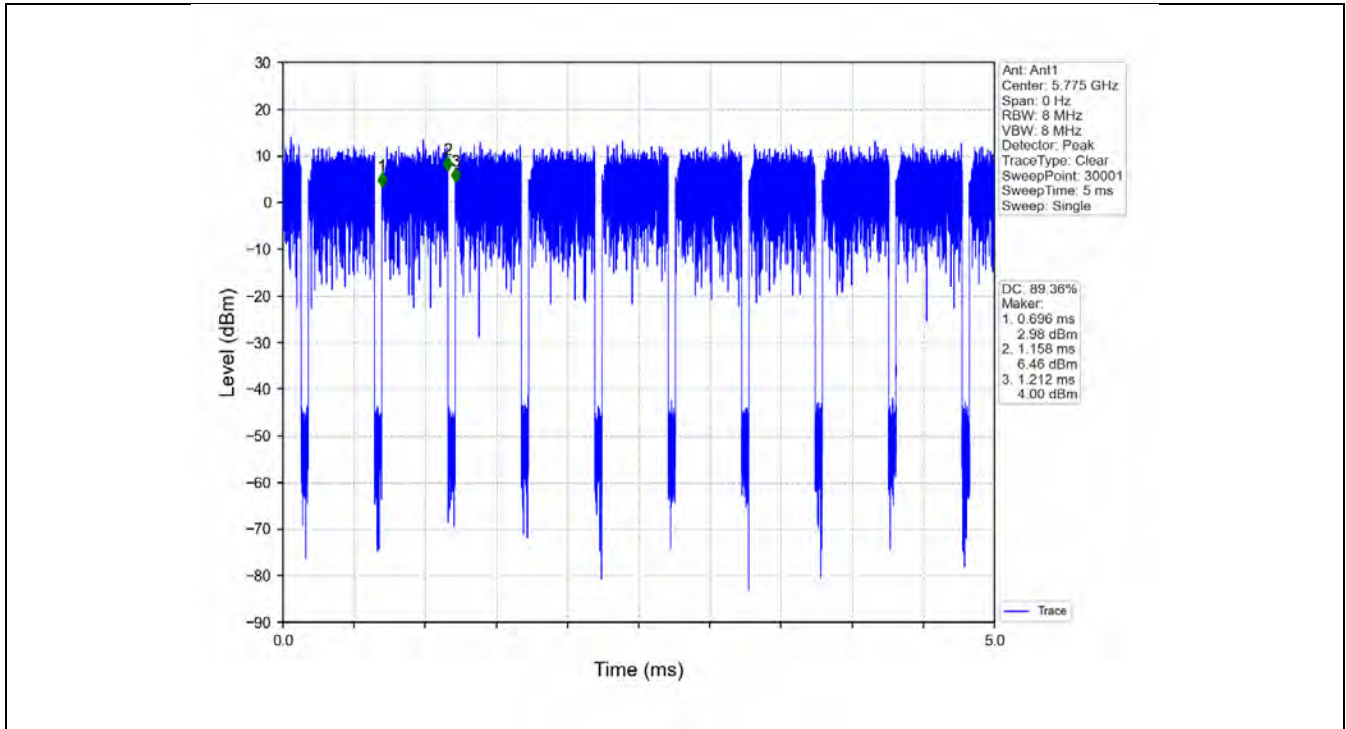
802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



## 2. Bandwidth

### 2.1 OBW

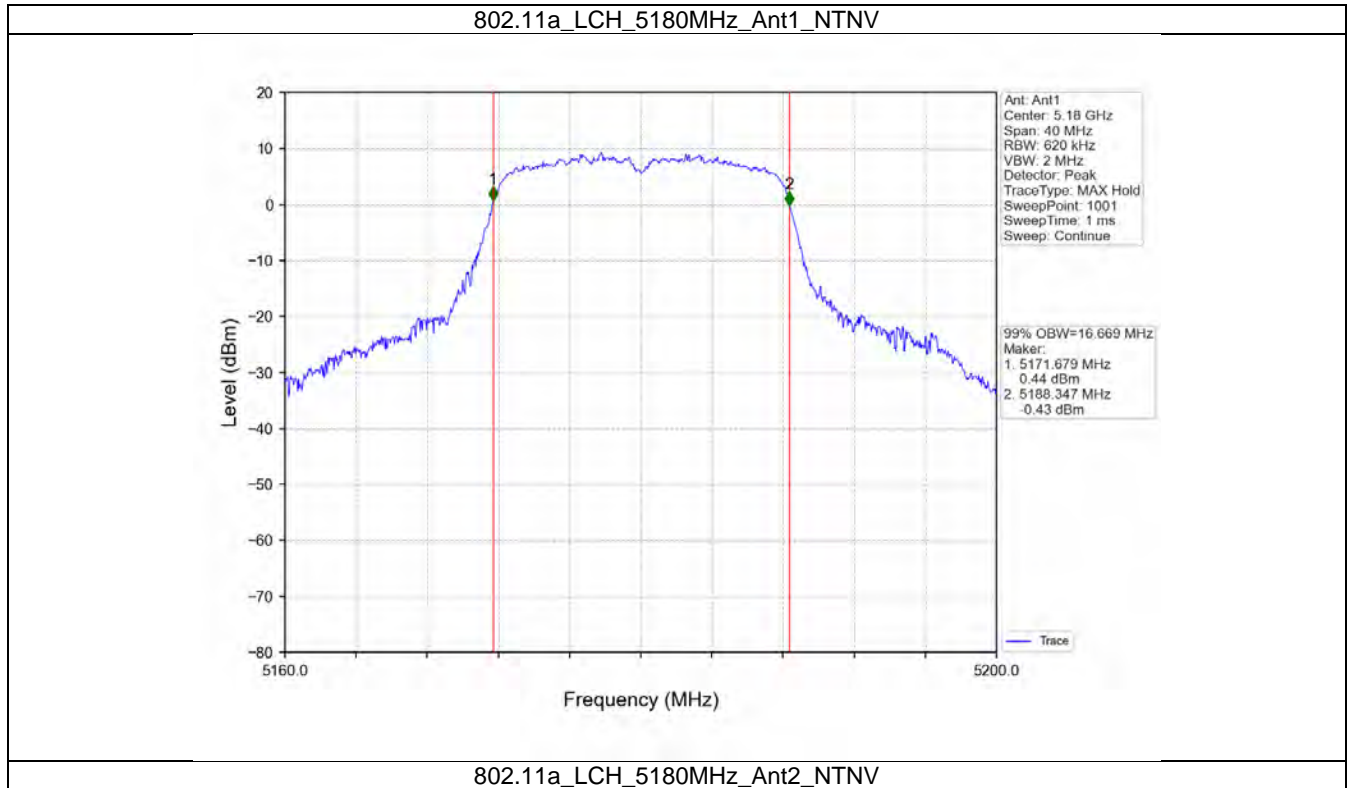
#### 2.1.1 Test Result

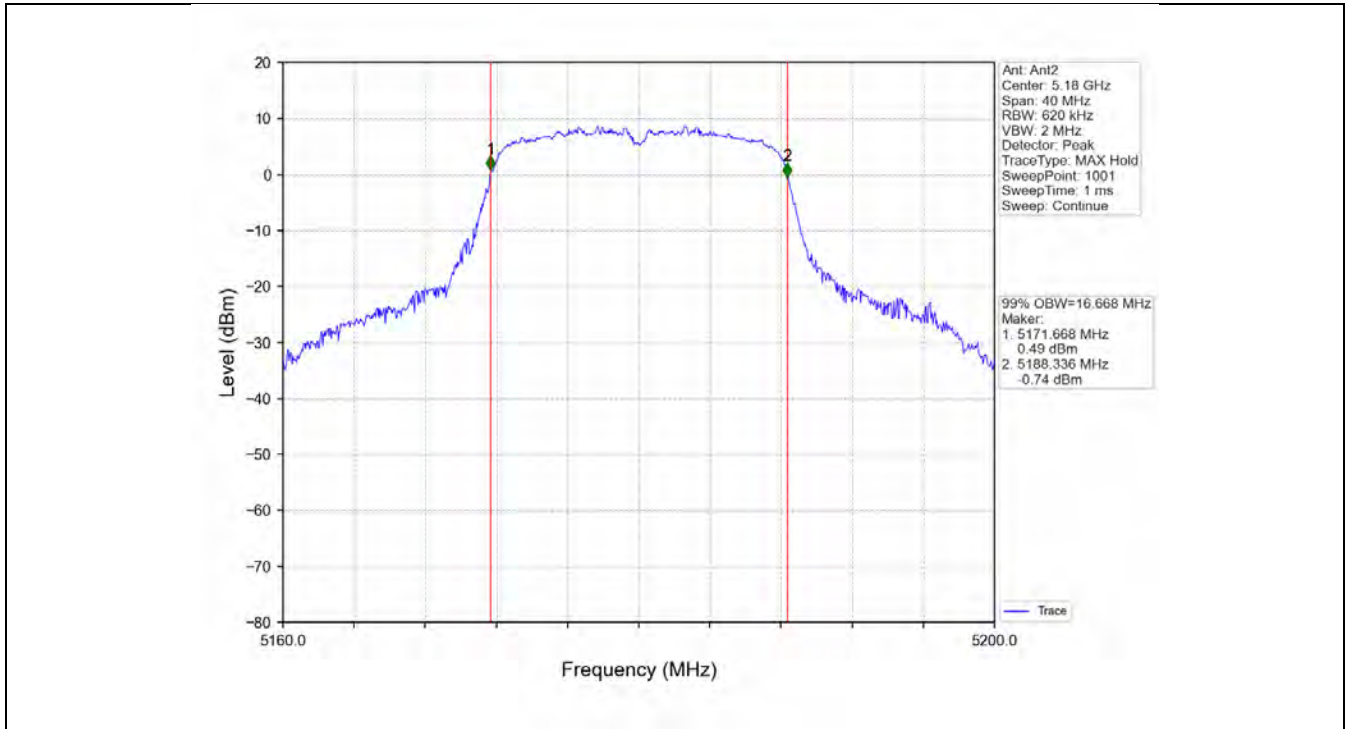
Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	16.669	Pass
			2	16.668	Pass
		5200	1	16.642	Pass
			2	16.657	Pass
		5240	1	16.544	Pass
			2	16.667	Pass
		5745	1	16.551	Pass
			2	16.590	Pass
		5785	1	16.533	Pass
			2	16.616	Pass
5825	1	16.519	Pass		
	2	16.579	Pass		
802.11n (HT20)	MIMO	5180	1	17.606	Pass
			2	17.581	Pass
		5200	1	17.610	Pass
			2	17.607	Pass
		5240	1	17.586	Pass



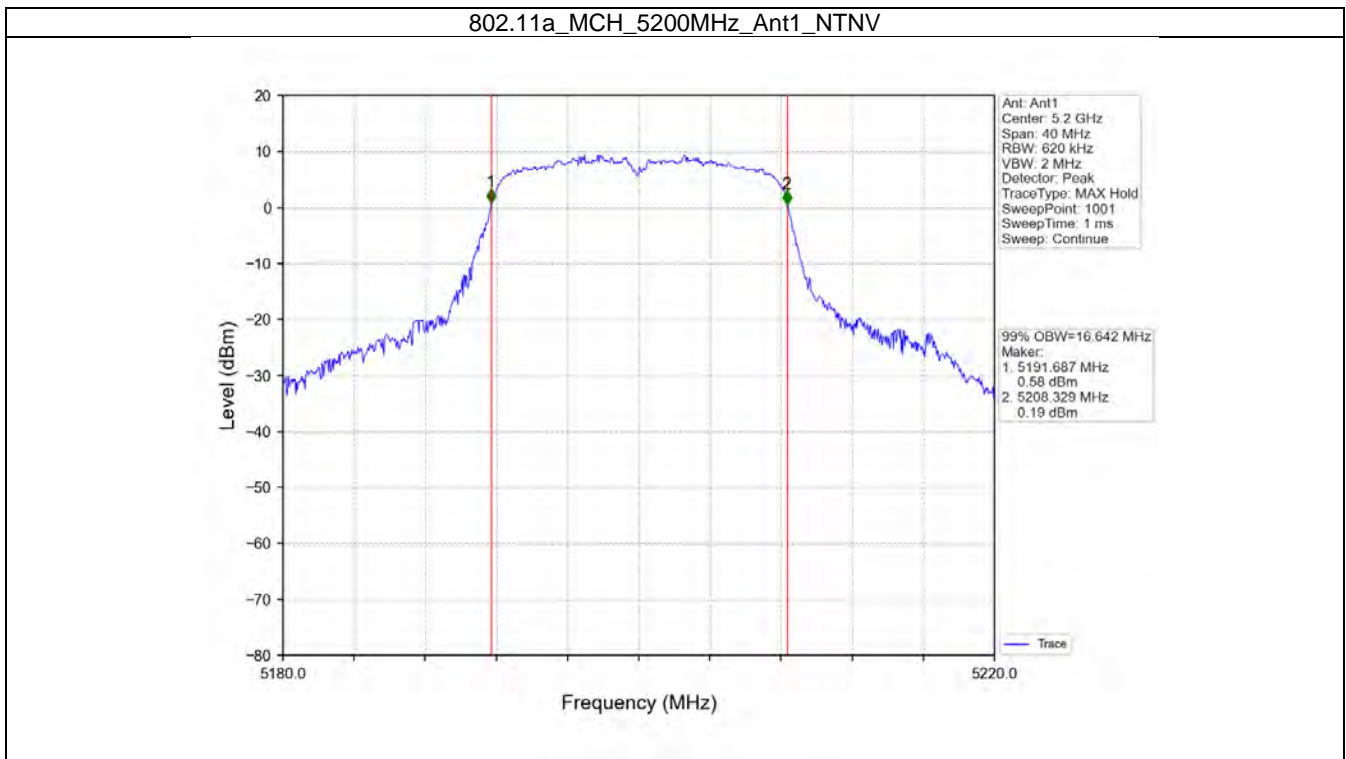
			2	17.596	Pass
		5745	1	17.624	Pass
			2	17.610	Pass
		5785	1	17.596	Pass
			2	17.603	Pass
		5825	1	17.613	Pass
			2	17.601	Pass
802.11n (HT40)	MIMO	5190	1	36.172	Pass
			2	36.132	Pass
		5230	1	36.197	Pass
			2	36.123	Pass
		5755	1	36.159	Pass
			2	37.307	Pass
		5795	1	36.185	Pass
			2	37.217	Pass
802.11ac (VHT20)	MIMO	5180	1	17.603	Pass
			2	17.583	Pass
		5200	1	17.607	Pass
			2	17.606	Pass
		5240	1	17.581	Pass
			2	17.606	Pass
		5745	1	17.601	Pass
			2	17.571	Pass
		5785	1	17.580	Pass
			2	17.589	Pass
		5825	1	17.592	Pass
			2	17.575	Pass
802.11ac (VHT40)	MIMO	5190	1	36.063	Pass
			2	36.028	Pass
		5230	1	36.112	Pass
			2	36.074	Pass
		5755	1	36.074	Pass
			2	36.041	Pass
		5795	1	36.067	Pass
			2	36.033	Pass
802.11ac (VHT80)	MIMO	5210	1	74.998	Pass
			2	75.021	Pass
		5775	1	75.096	Pass
			2	74.905	Pass

### 2.1.2 Test Graph

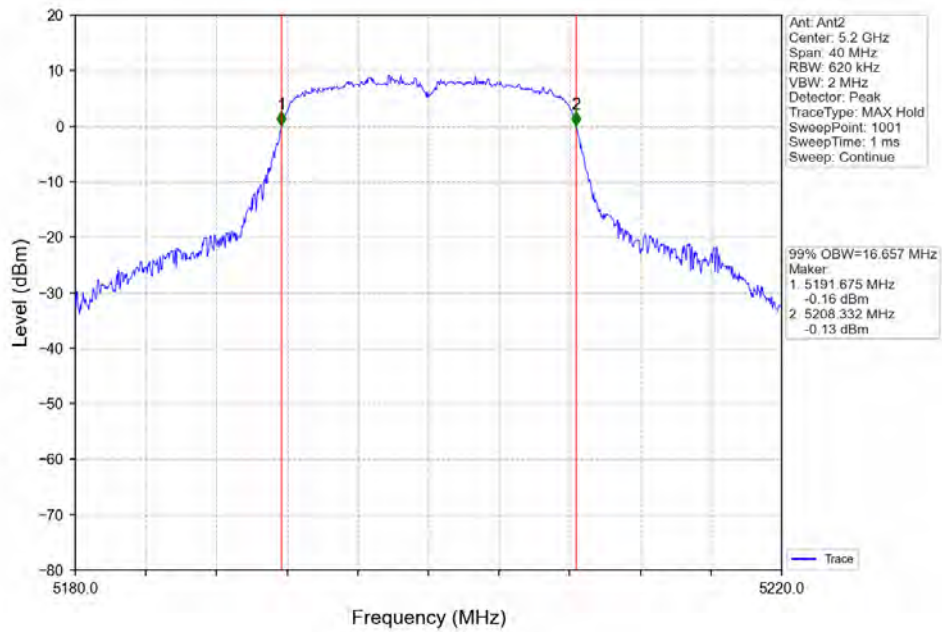




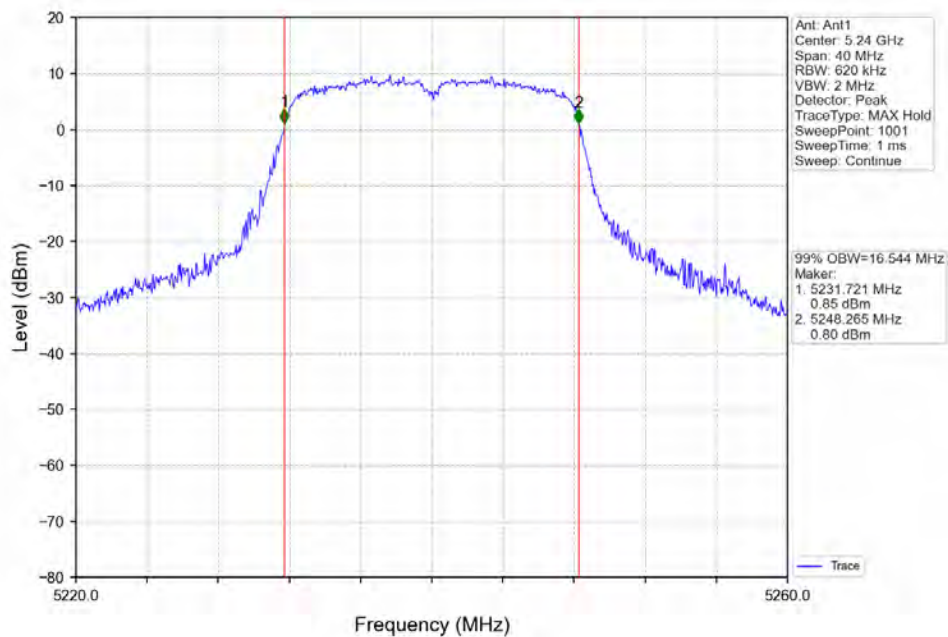
802.11a\_MCH\_5200MHz\_Ant1\_NTNV



802.11a\_MCH\_5200MHz\_Ant2\_NTNV

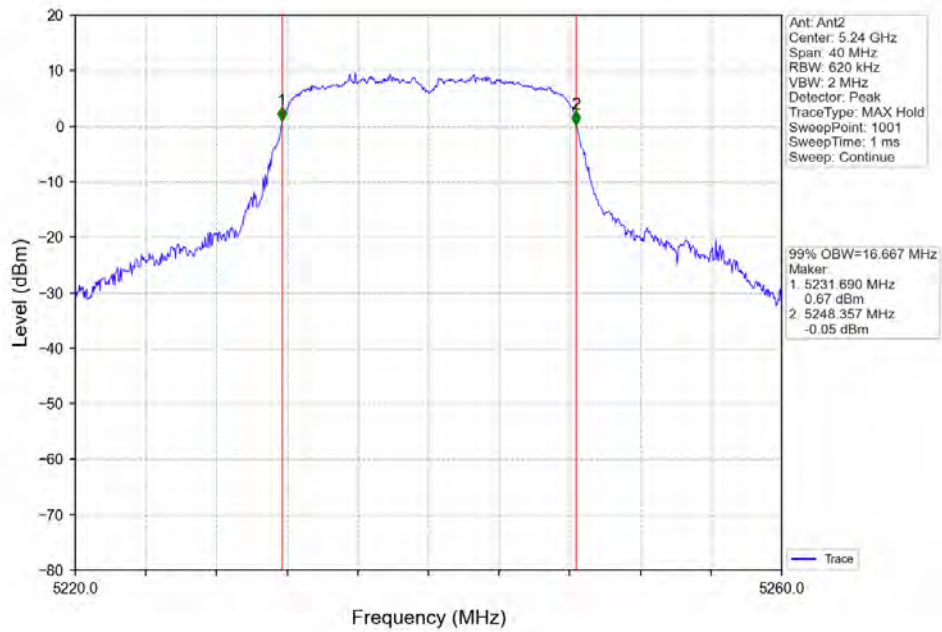


802.11a\_HCH\_5240MHz\_Ant1\_NTNV

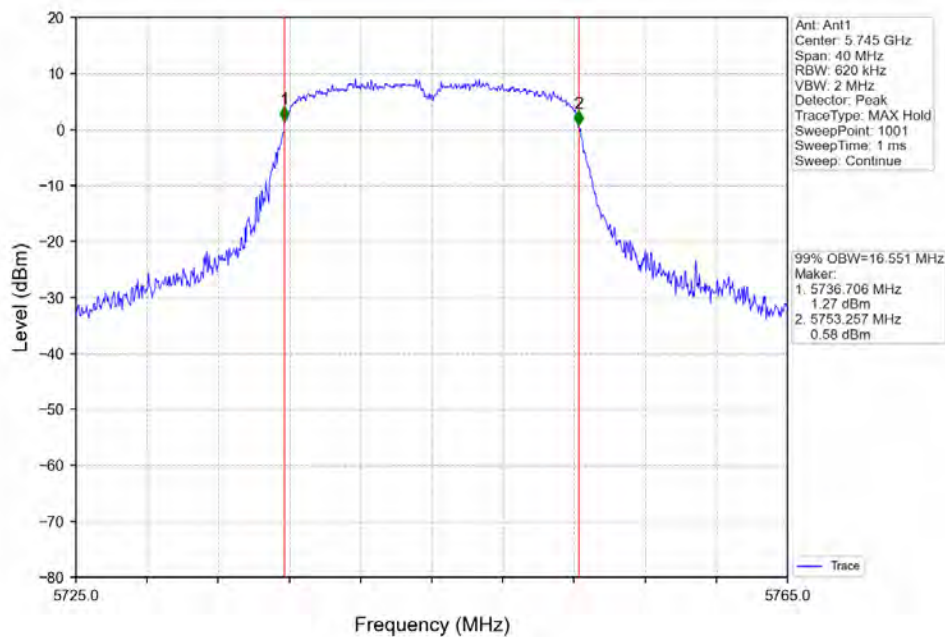




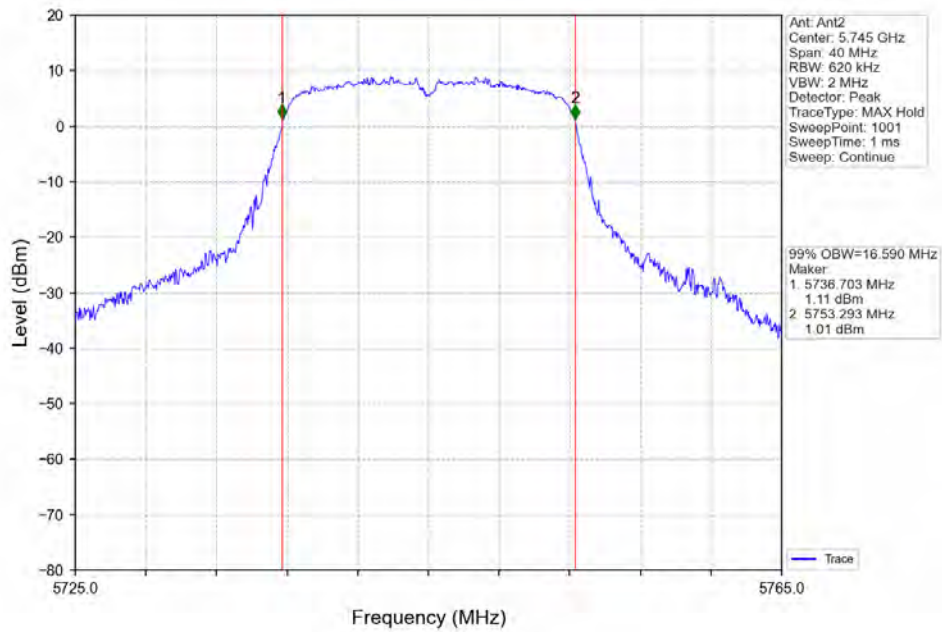
802.11a\_HCH\_5240MHz\_Ant2\_NTNV



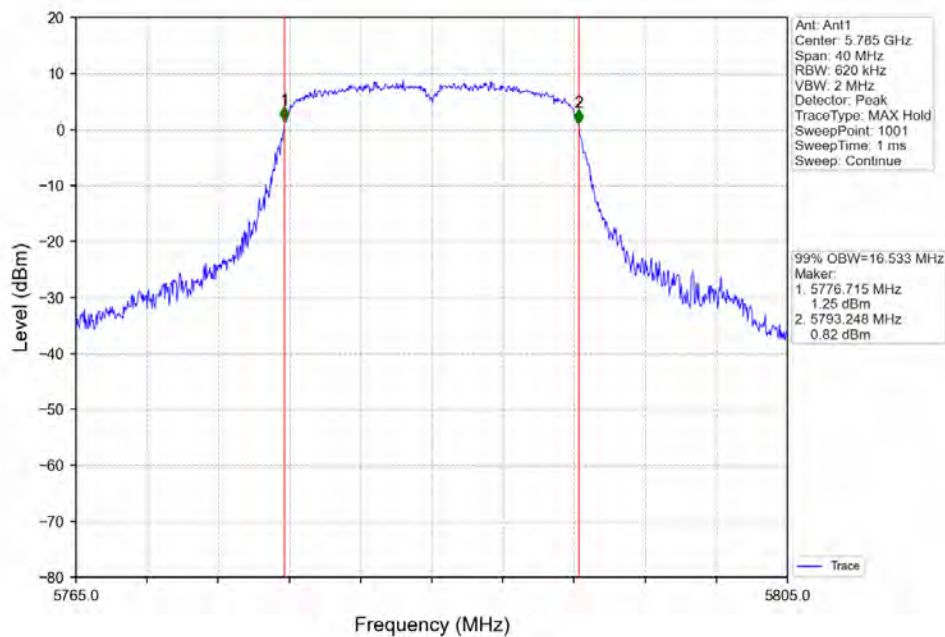
802.11a\_LCH\_5745MHz\_Ant1\_NTNV



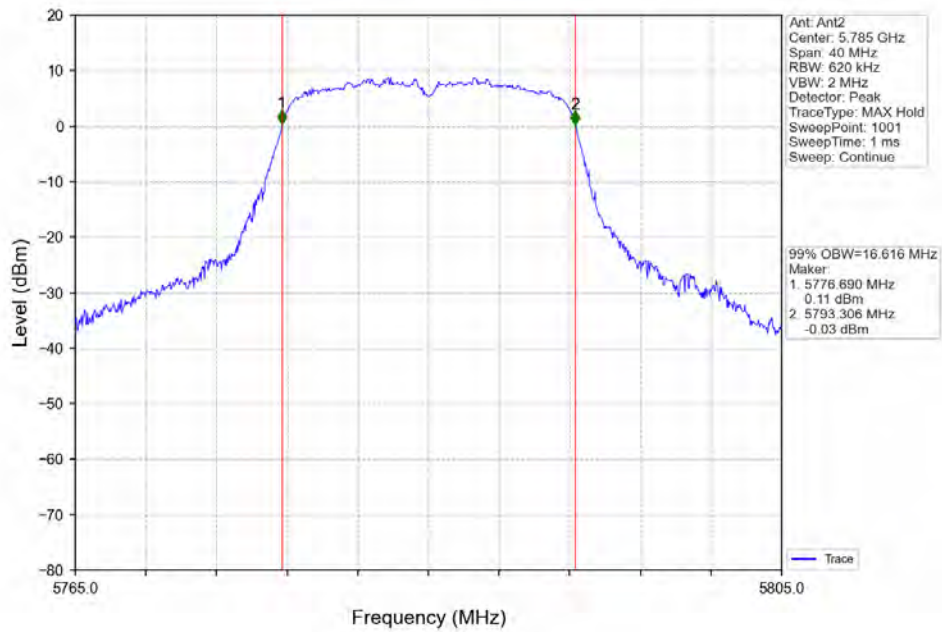
802.11a\_LCH\_5745MHz\_Ant2\_NTNV



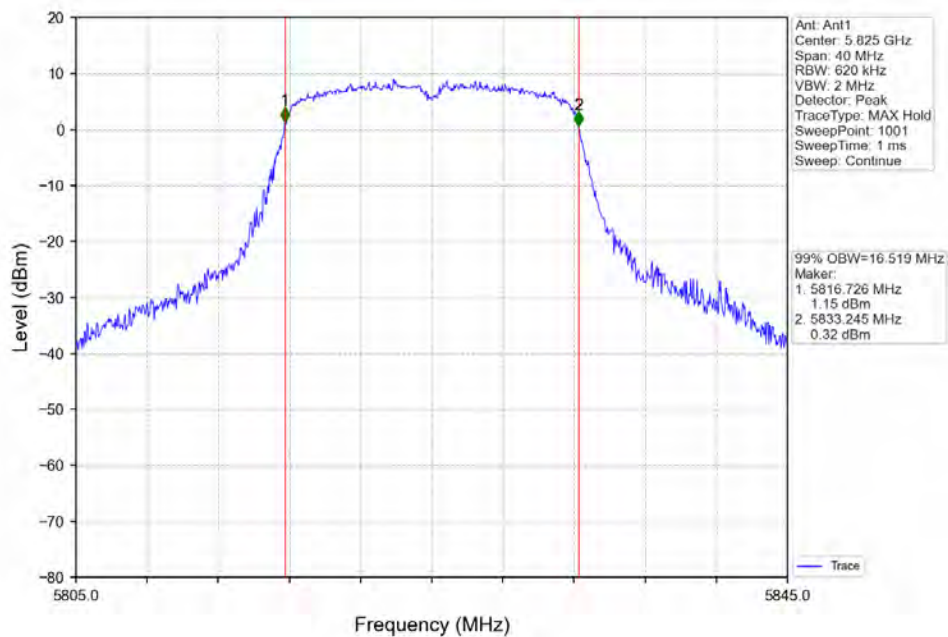
802.11a\_MCH\_5785MHz\_Ant1\_NTNV



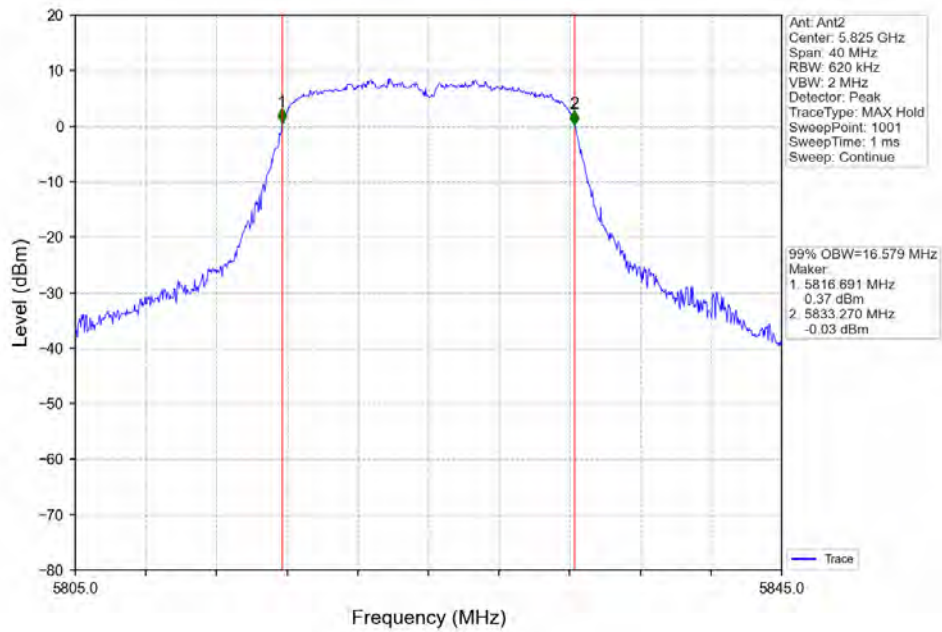
802.11a\_MCH\_5785MHz\_Ant2\_NTNV



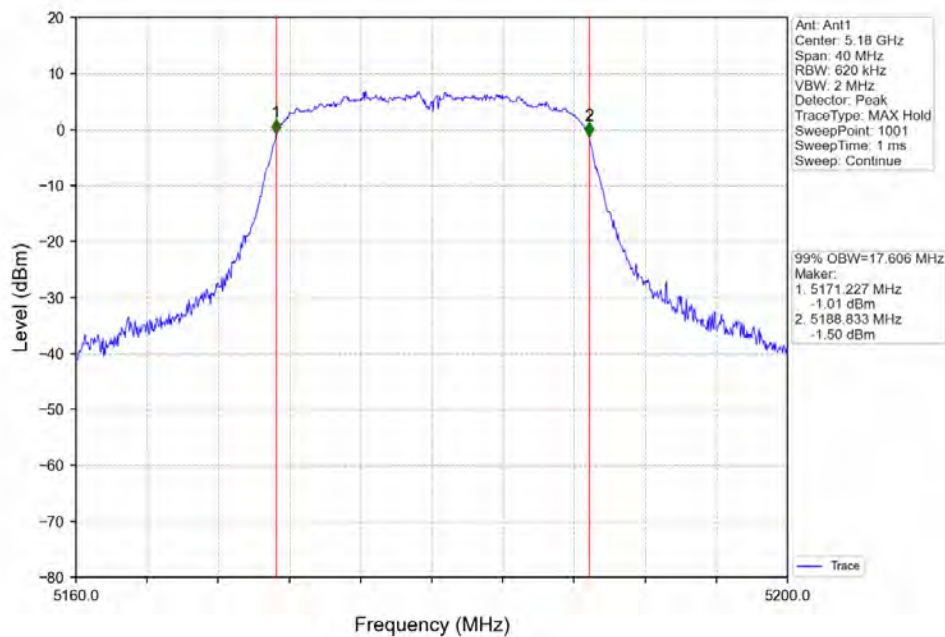
802.11a\_HCH\_5825MHz\_Ant1\_NTNV



802.11a\_HCH\_5825MHz\_Ant2\_NTNV

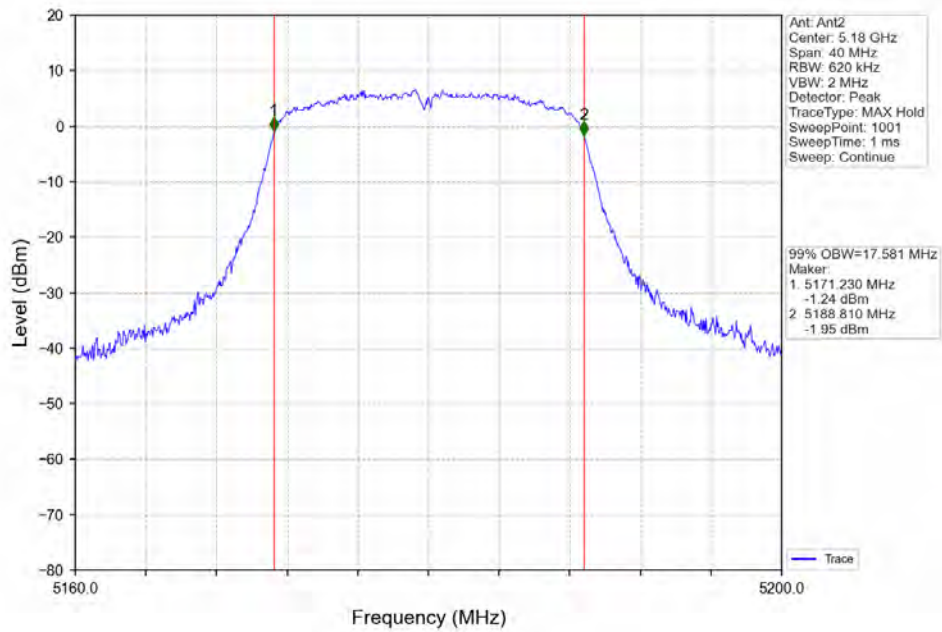


802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV

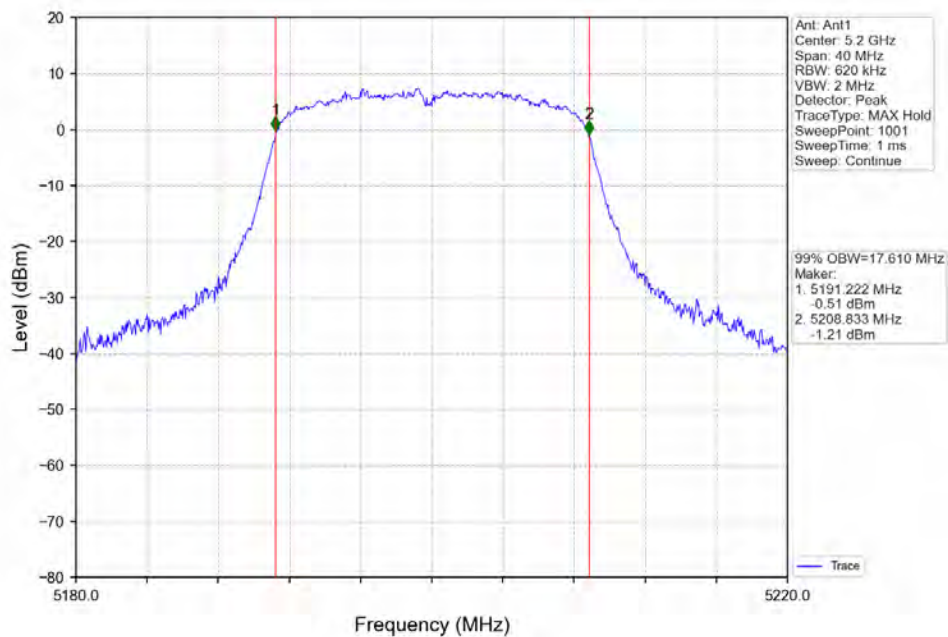




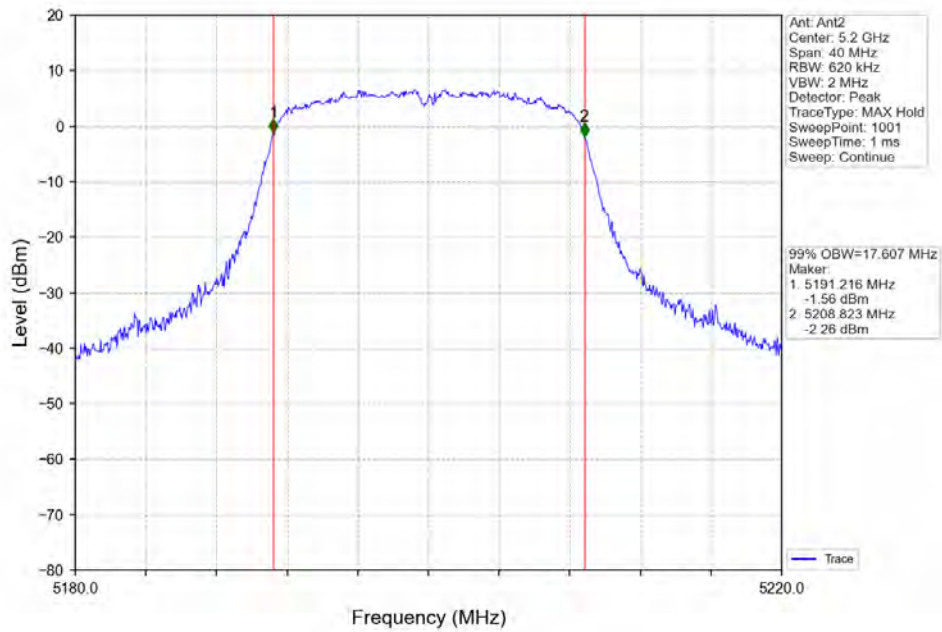
802.11n(HT20)\_LCH\_5180MHz\_Ant2\_NTNV



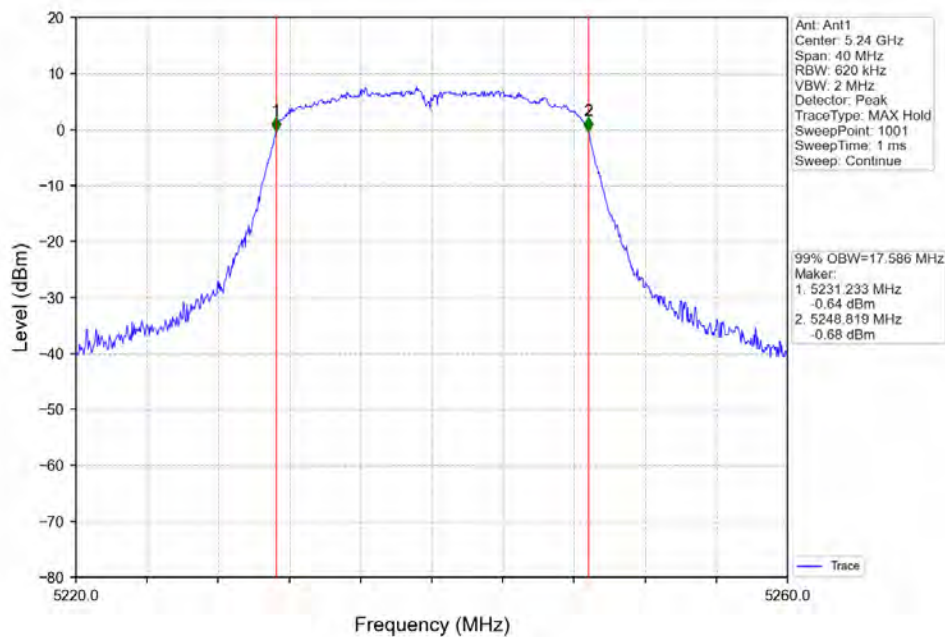
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



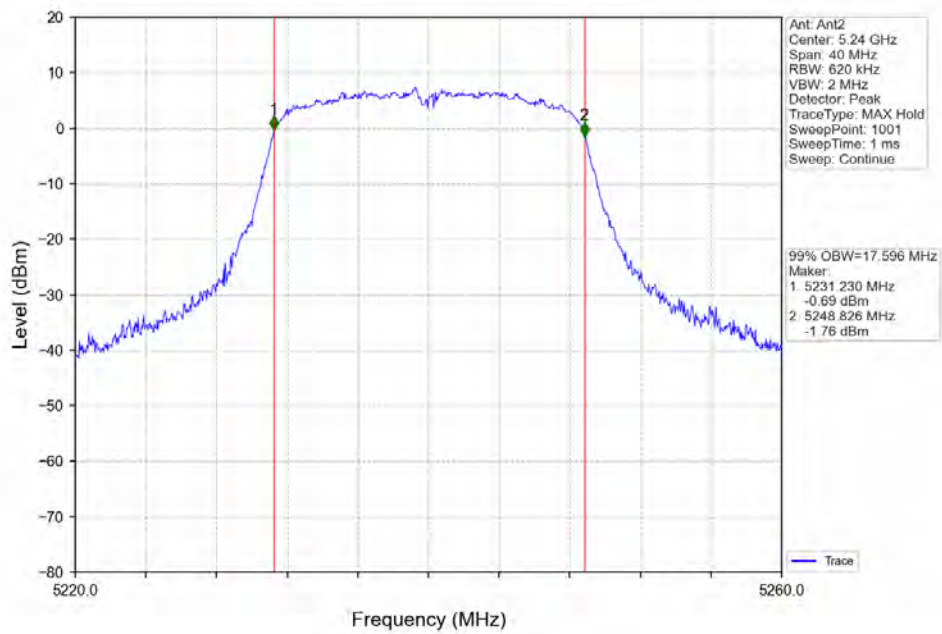
802.11n(HT20)\_MCH\_5200MHz\_Ant2\_NTNV



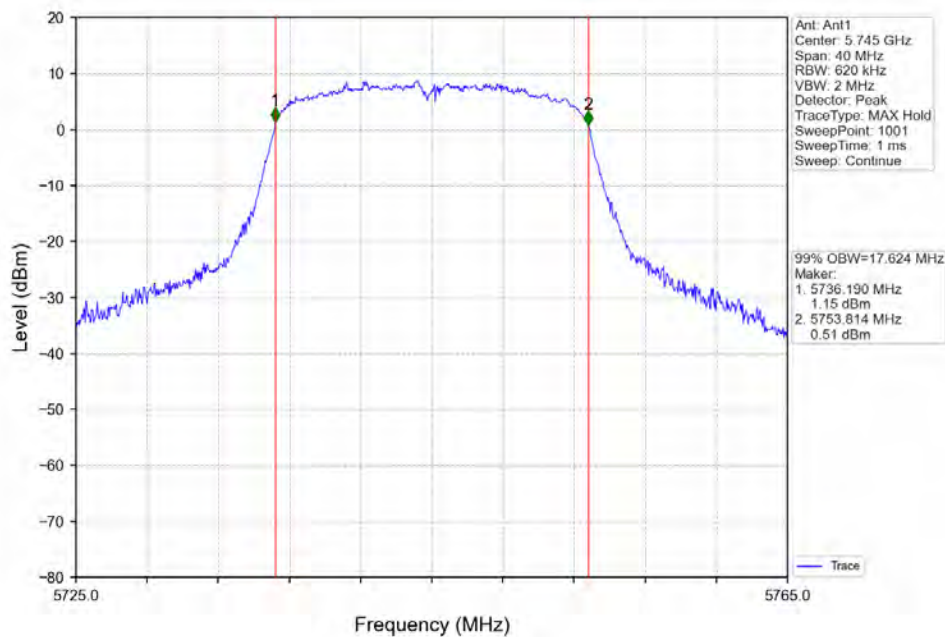
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



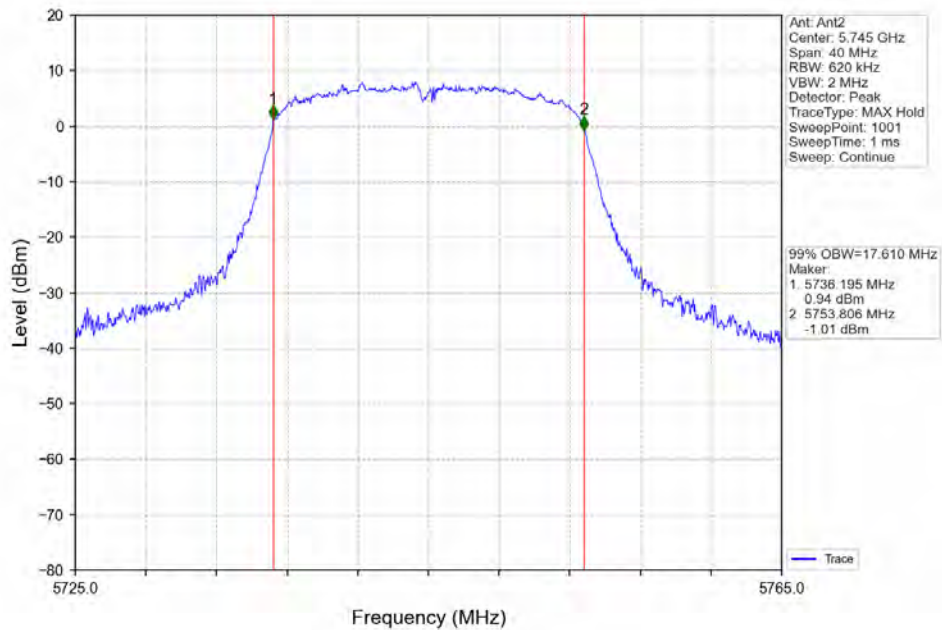
802.11n(HT20)\_HCH\_5240MHz\_Ant2\_NTNV



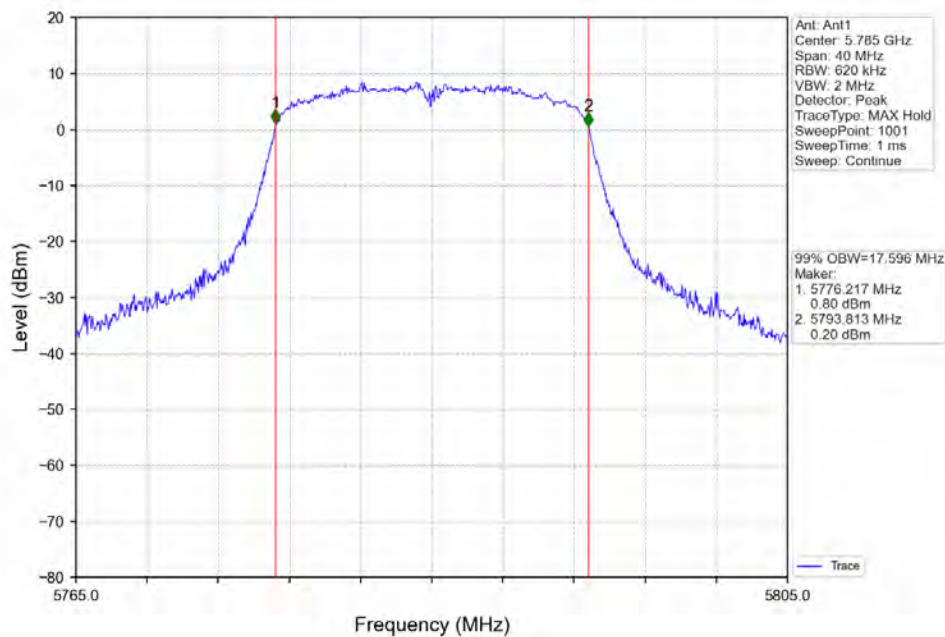
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



802.11n(HT20)\_LCH\_5745MHz\_Ant2\_NTNV

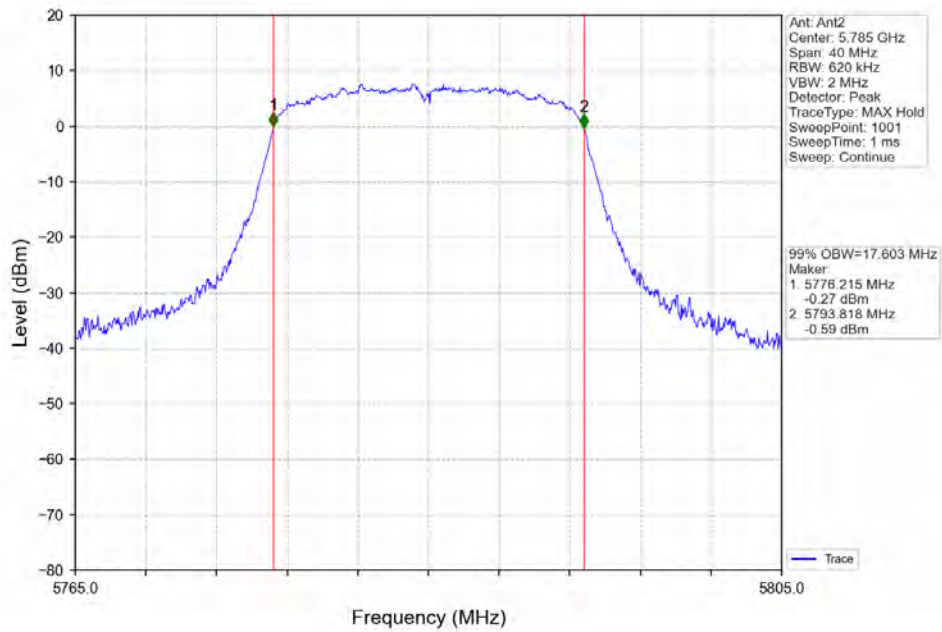


802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

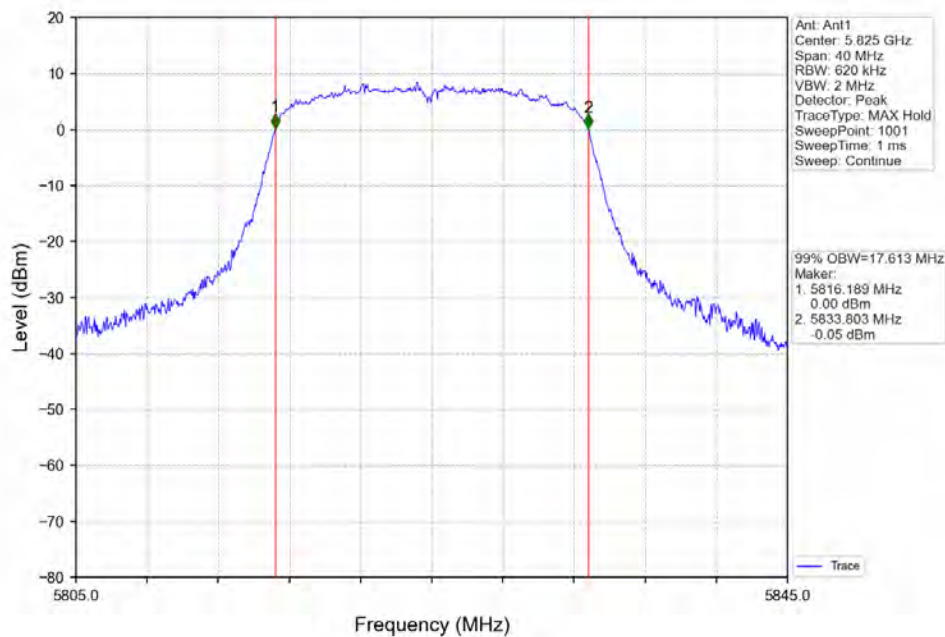




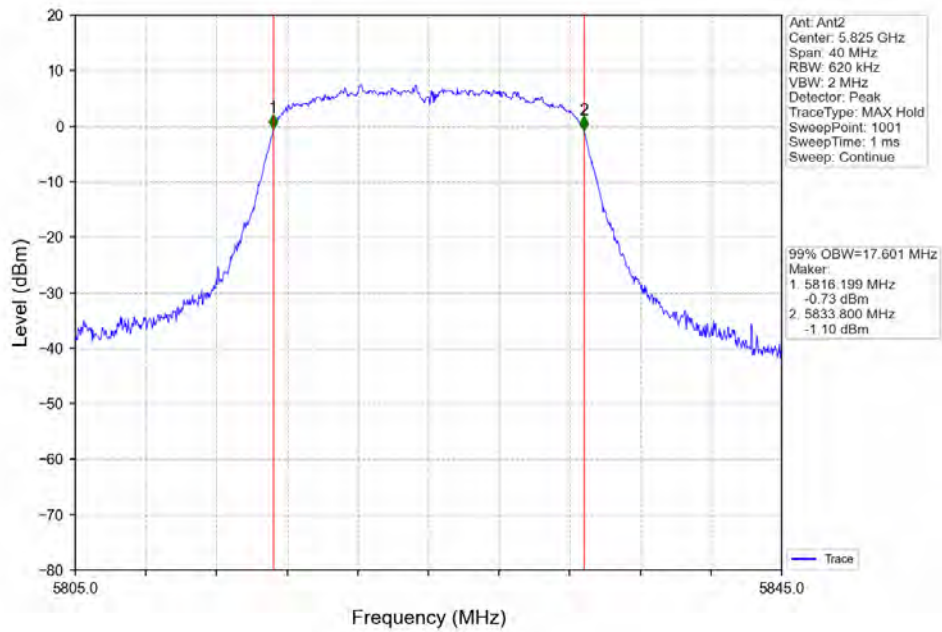
802.11n(HT20)\_MCH\_5785MHz\_Ant2\_NTNV



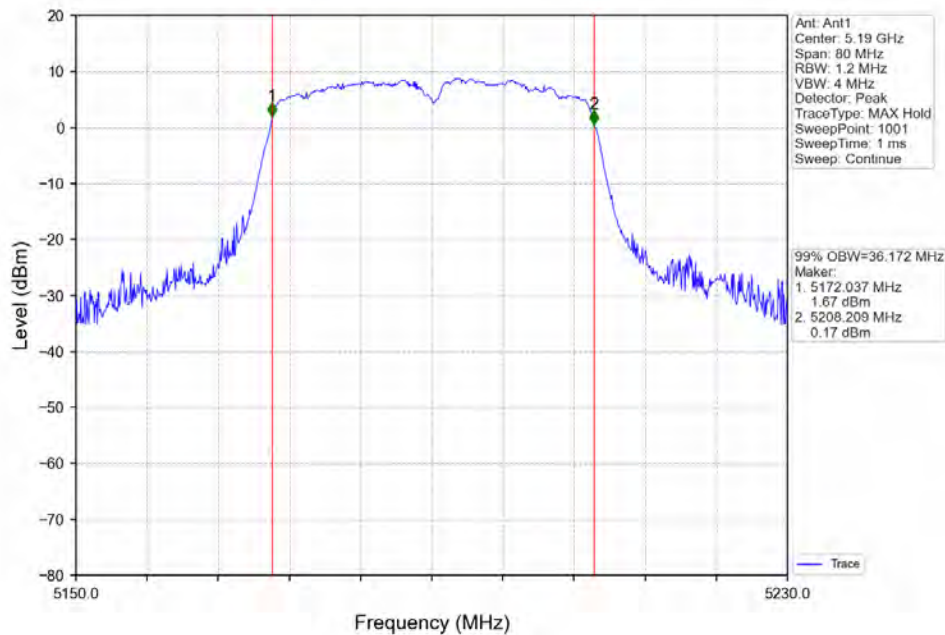
802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



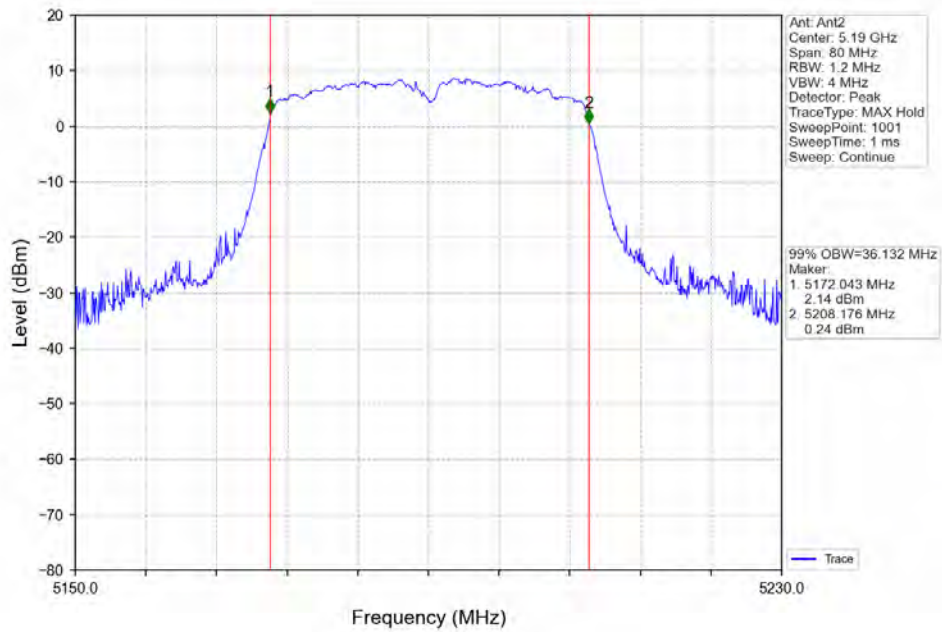
802.11n(HT20)\_HCH\_5825MHz\_Ant2\_NTNV



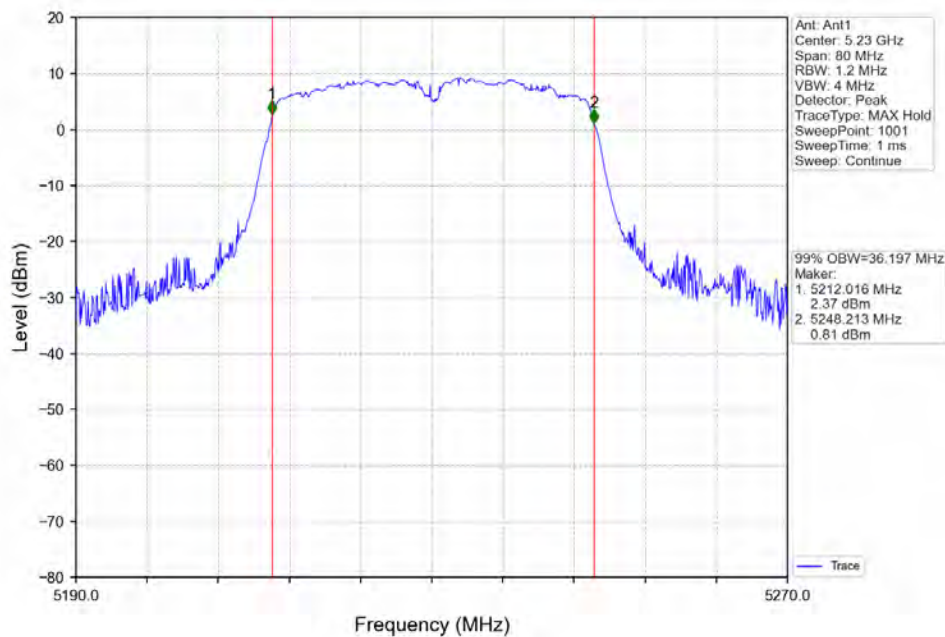
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



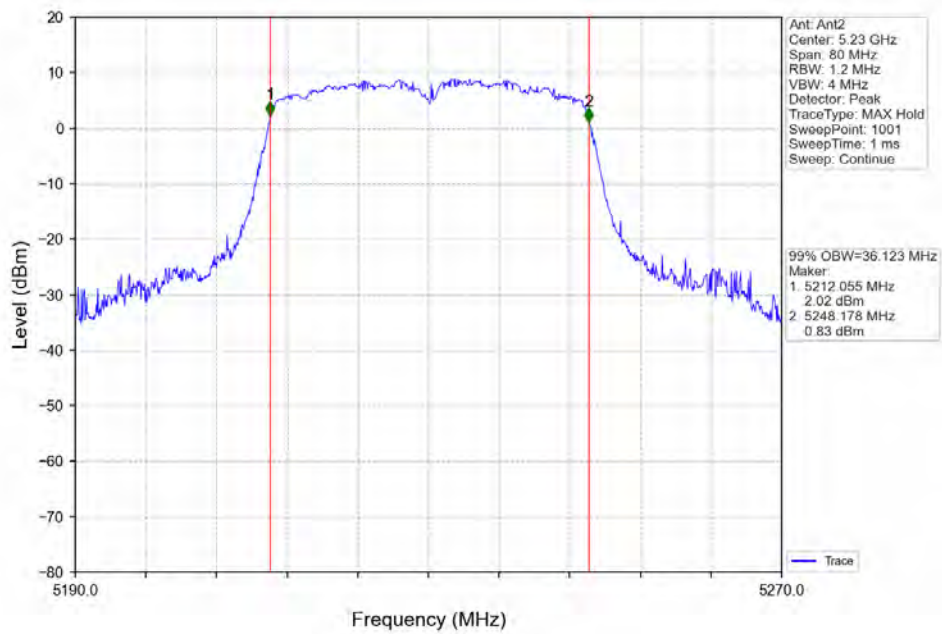
802.11n(HT40)\_LCH\_5190MHz\_Ant2\_NTNV



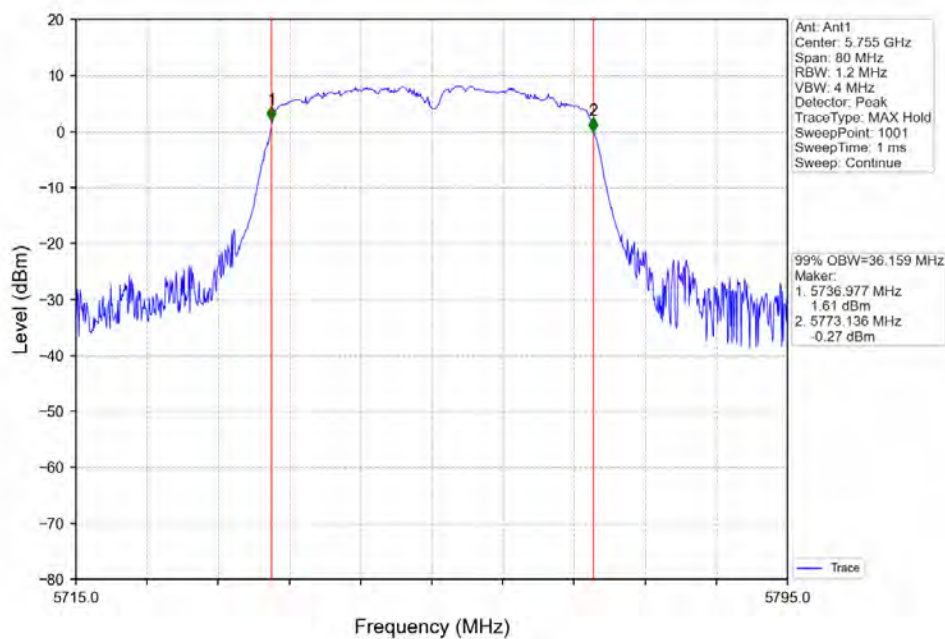
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



802.11n(HT40)\_HCH\_5230MHz\_Ant2\_NTNV

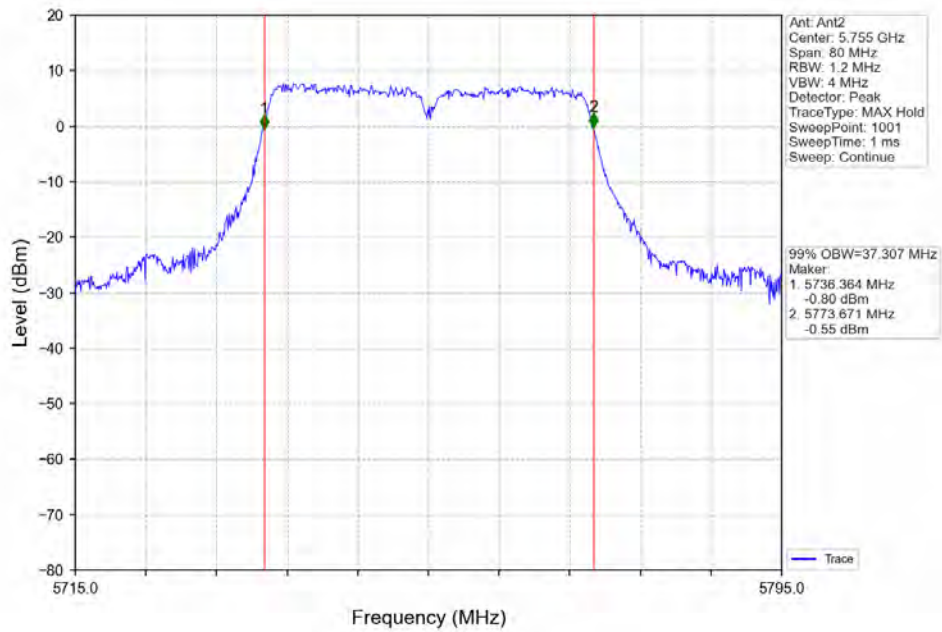


802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV

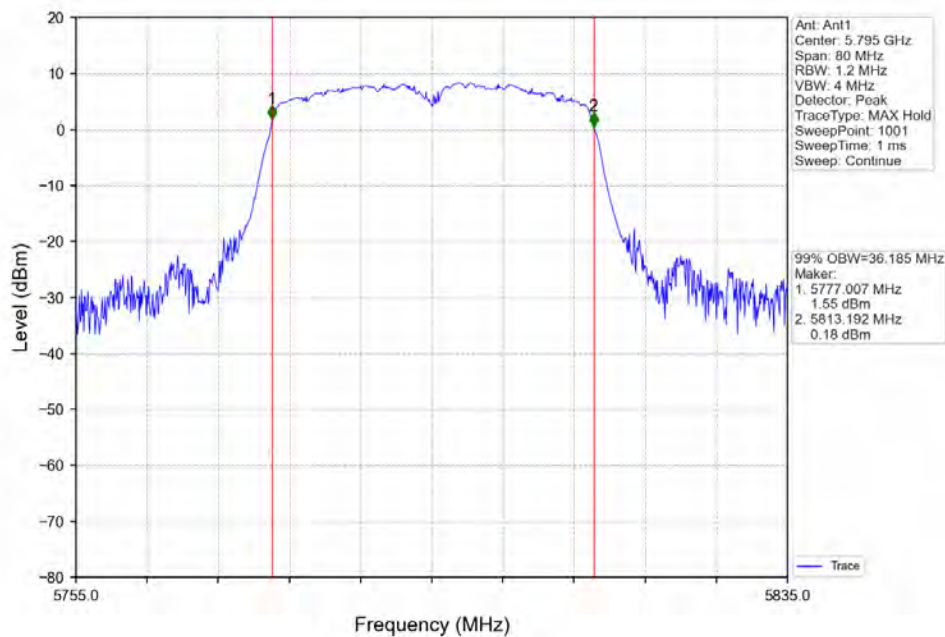




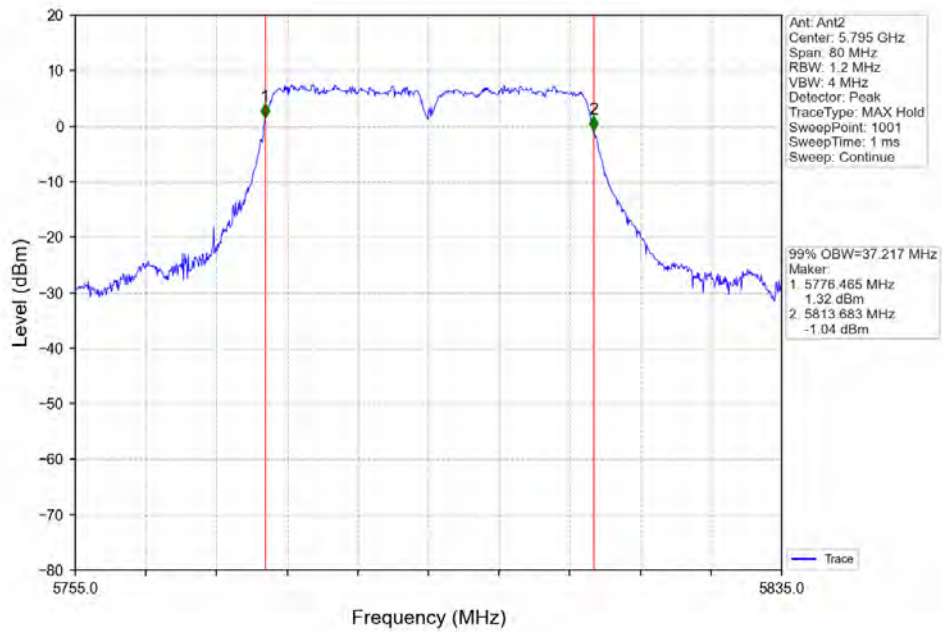
802.11n(HT40)\_LCH\_5755MHz\_Ant2\_NTNV



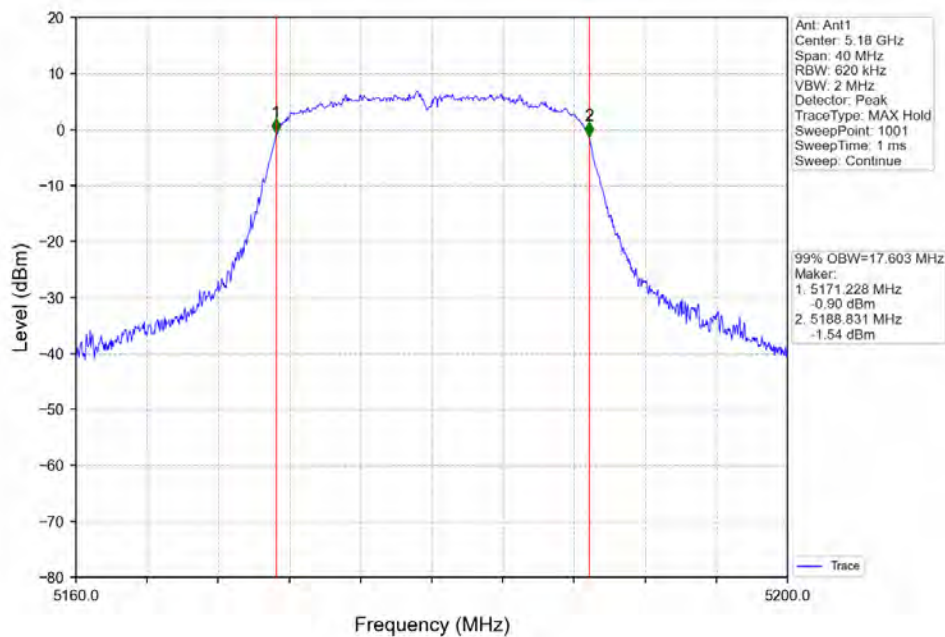
802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



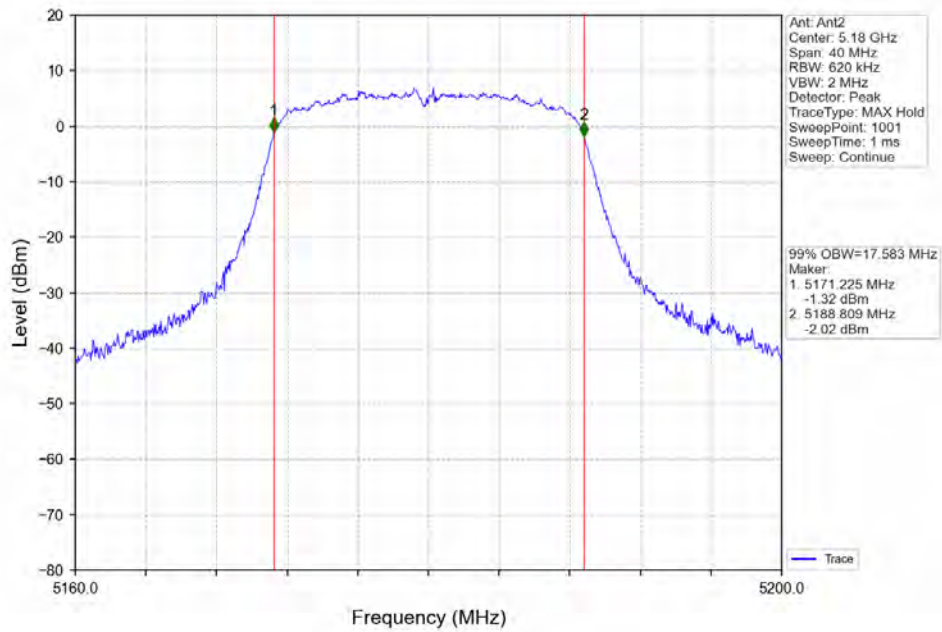
802.11n(HT40)\_HCH\_5795MHz\_Ant2\_NTNV



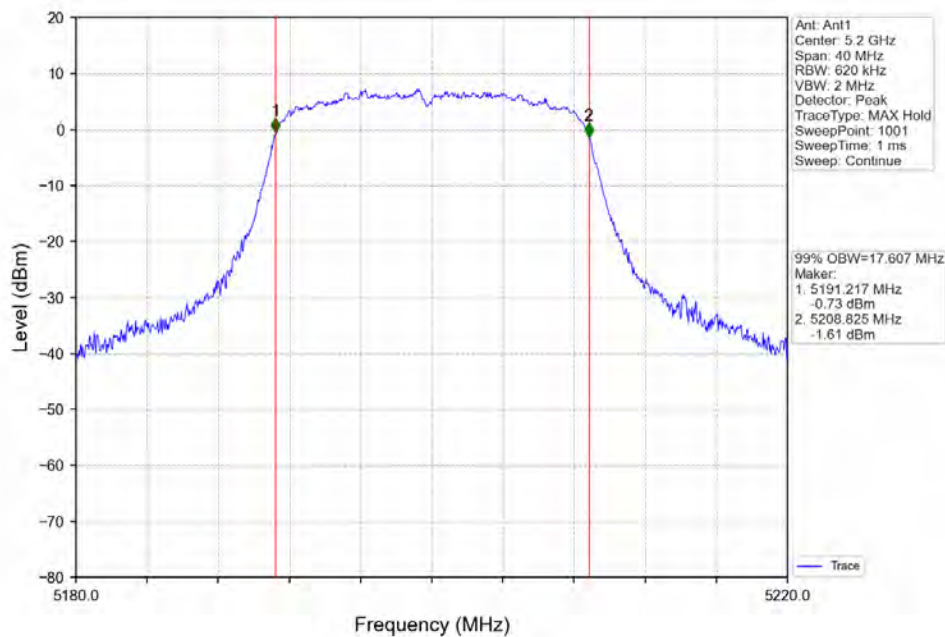
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



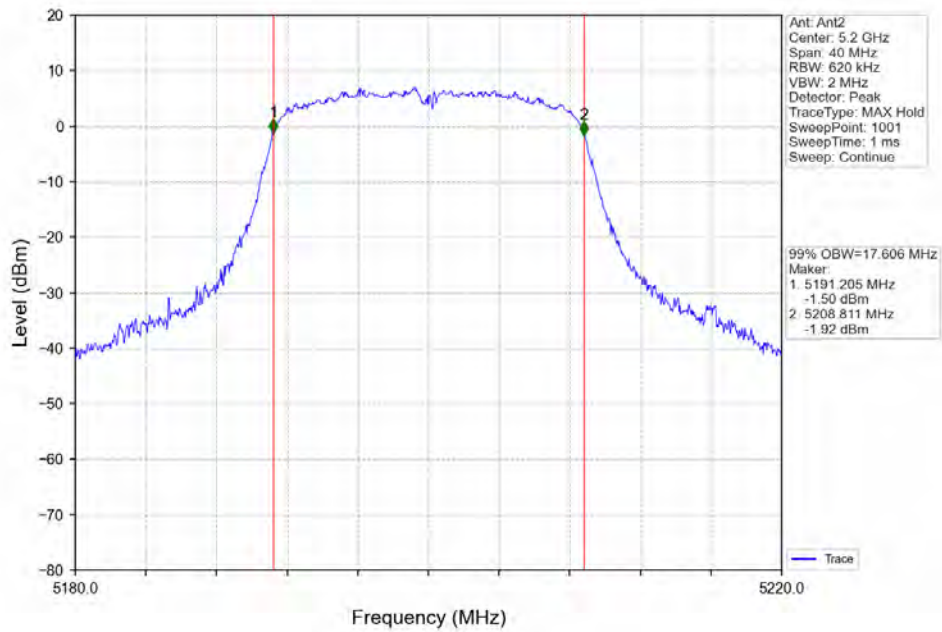
802.11ac(VHT20)\_LCH\_5180MHz\_Ant2\_NTNV



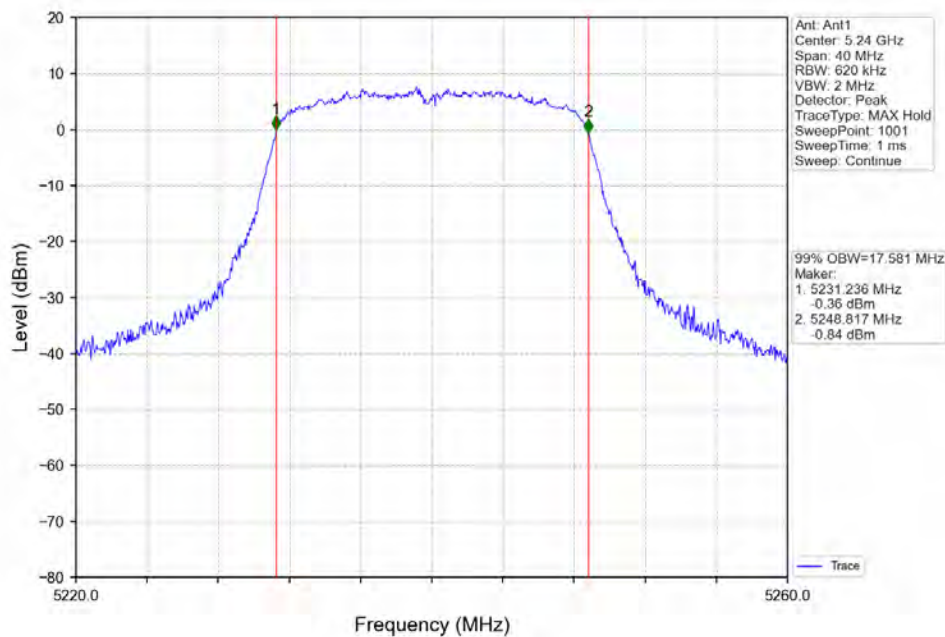
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



802.11ac(VHT20)\_MCH\_5200MHz\_Ant2\_NTNV

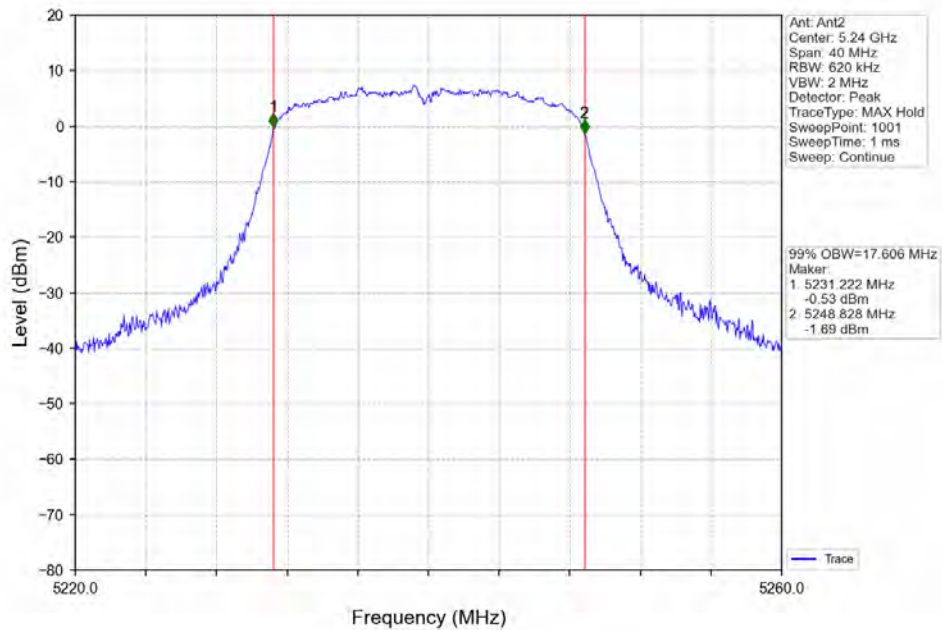


802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV

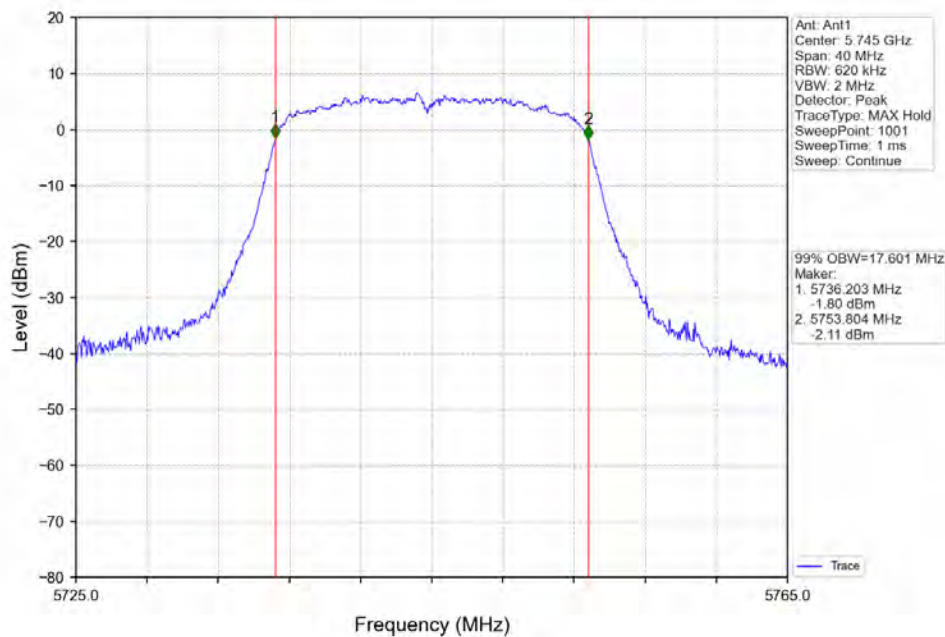




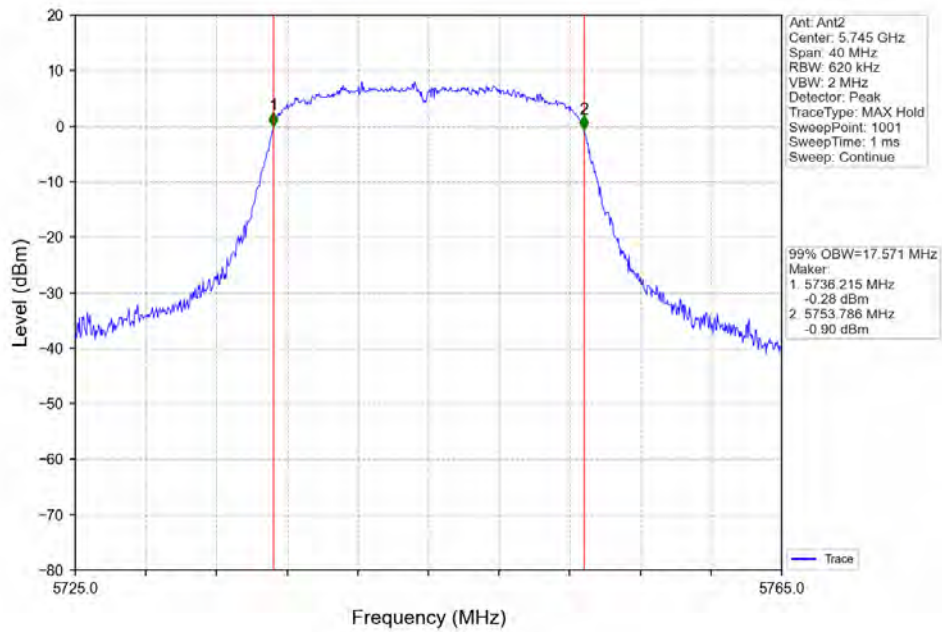
802.11ac(VHT20)\_HCH\_5240MHz\_Ant2\_NTNV



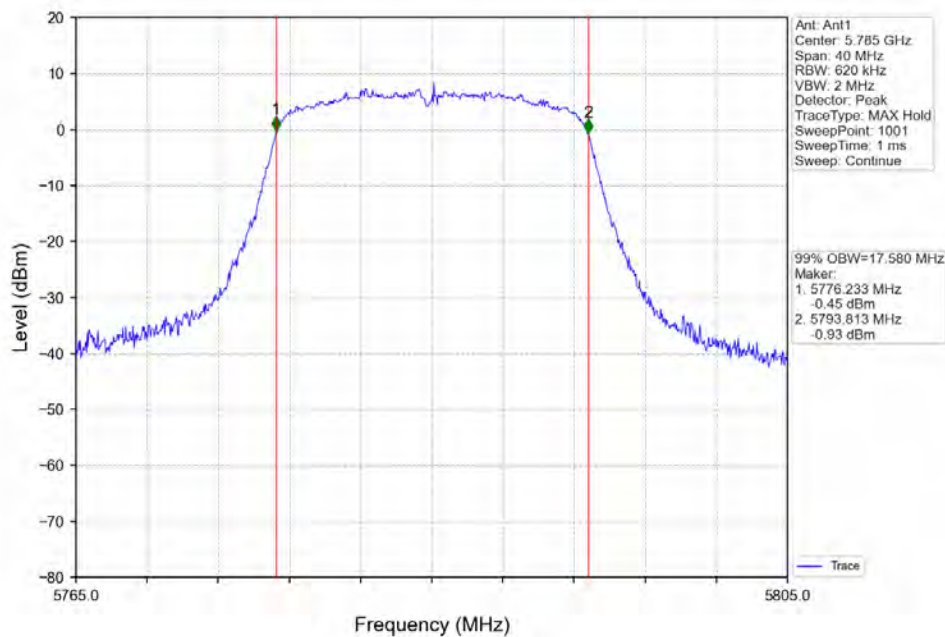
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



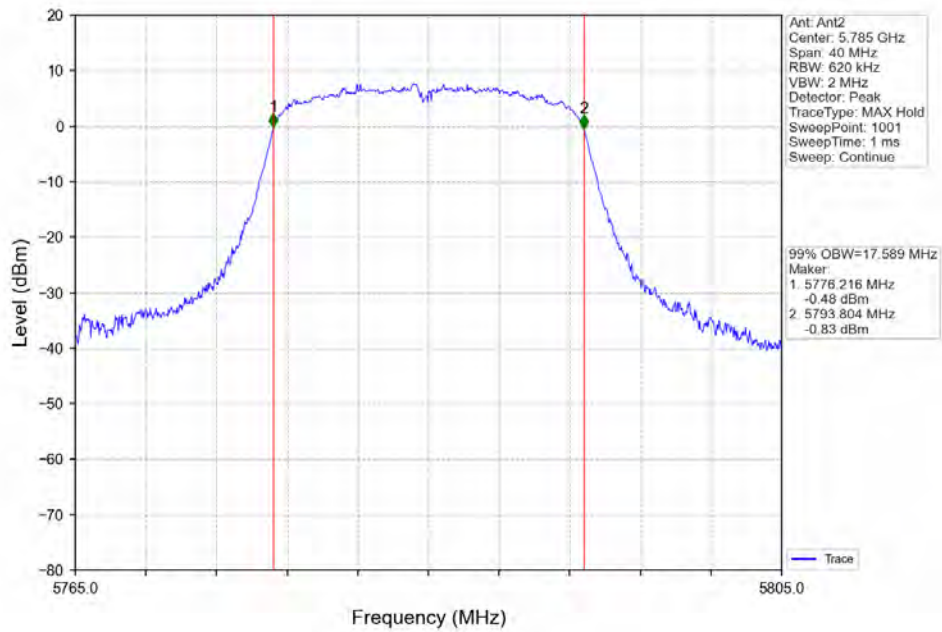
802.11ac(VHT20)\_LCH\_5745MHz\_Ant2\_NTNV



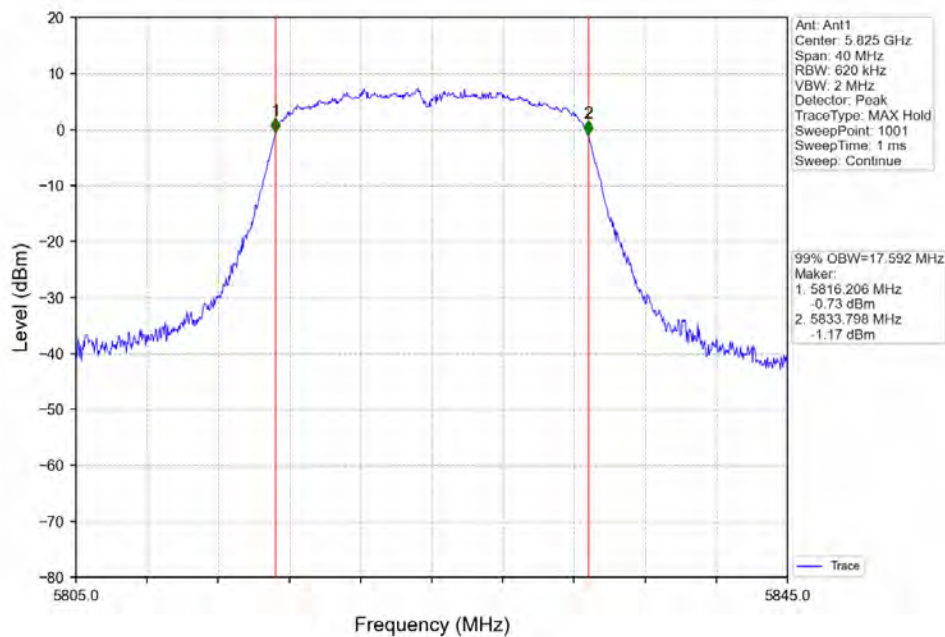
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



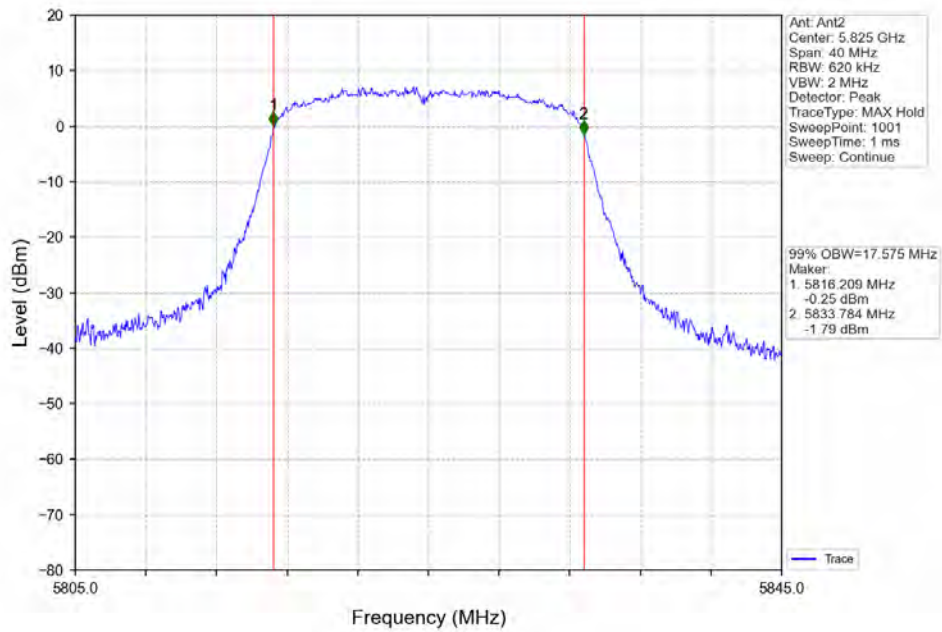
802.11ac(VHT20)\_MCH\_5785MHz\_Ant2\_NTNV



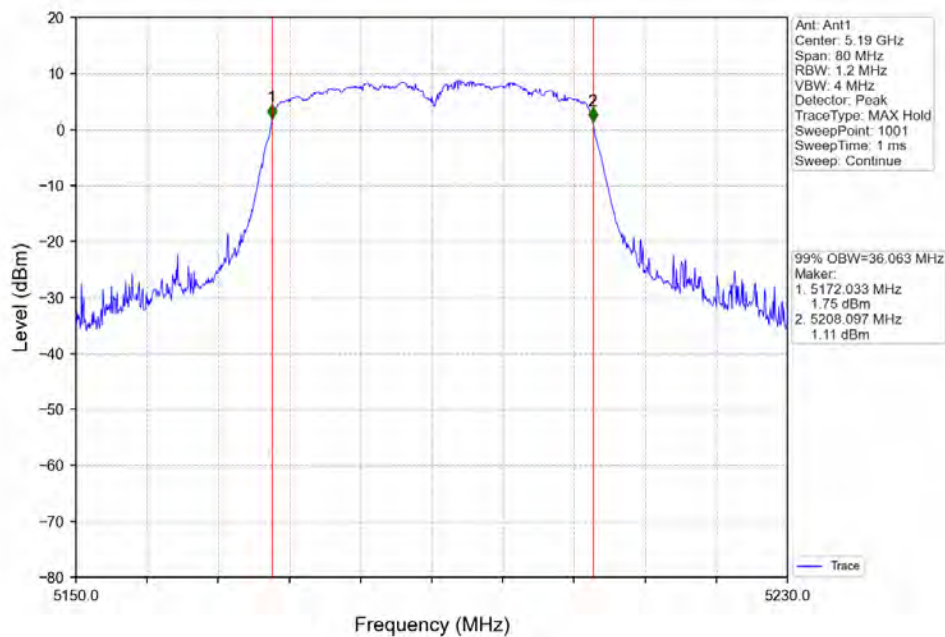
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



802.11ac(VHT20)\_HCH\_5825MHz\_Ant2\_NTNV

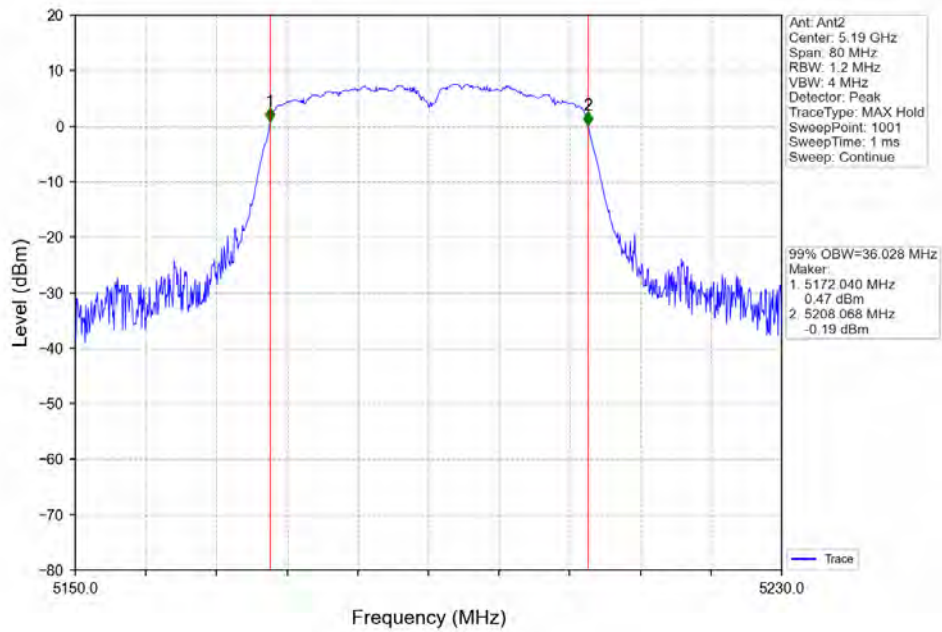


802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

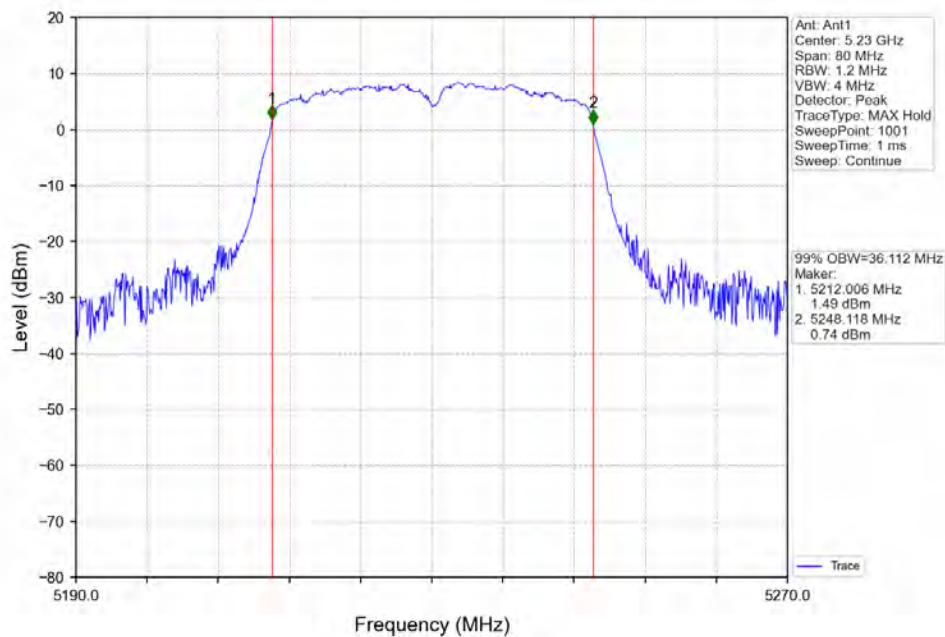




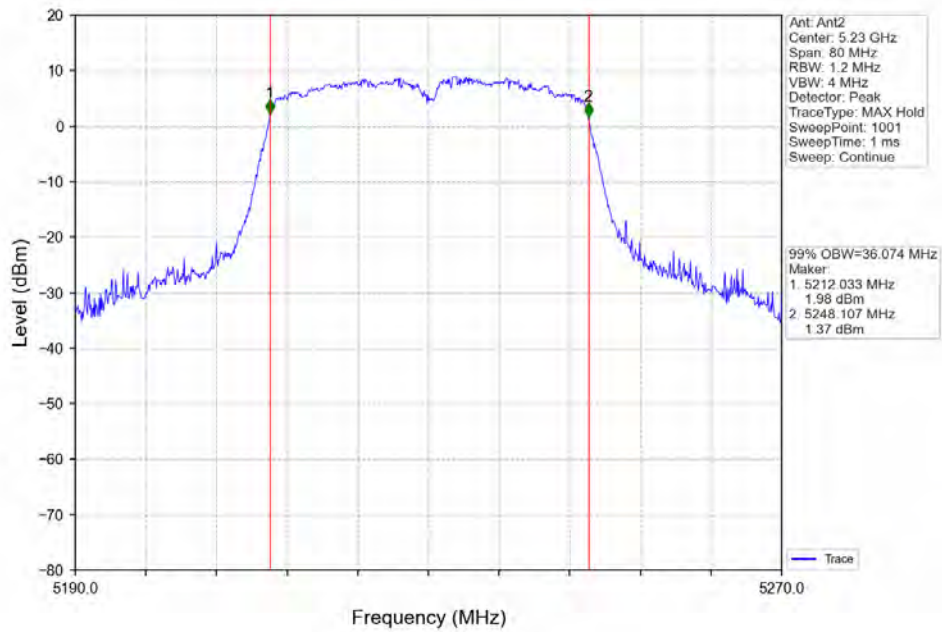
802.11ac(VHT40)\_LCH\_5190MHz\_Ant2\_NTNV



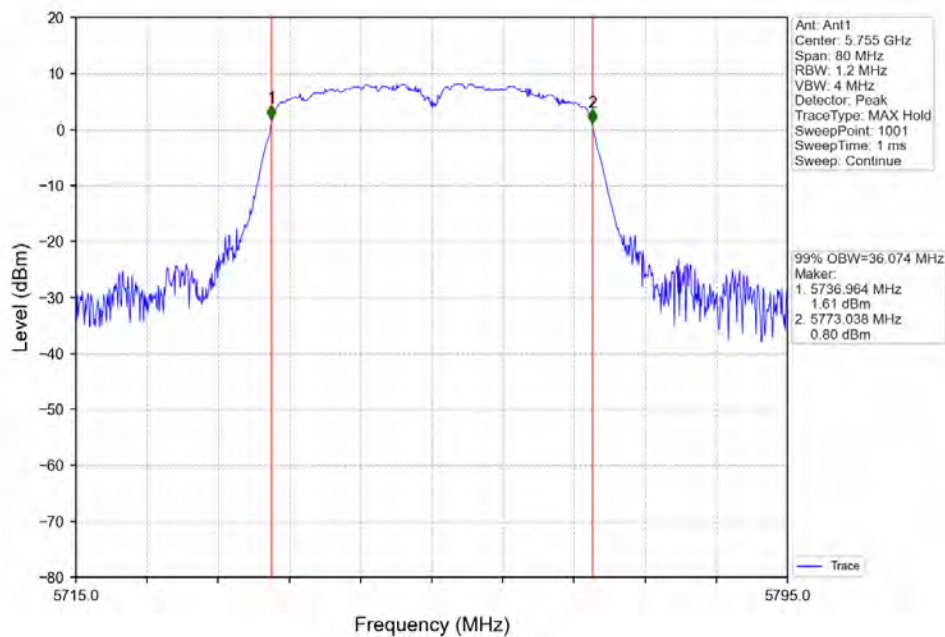
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



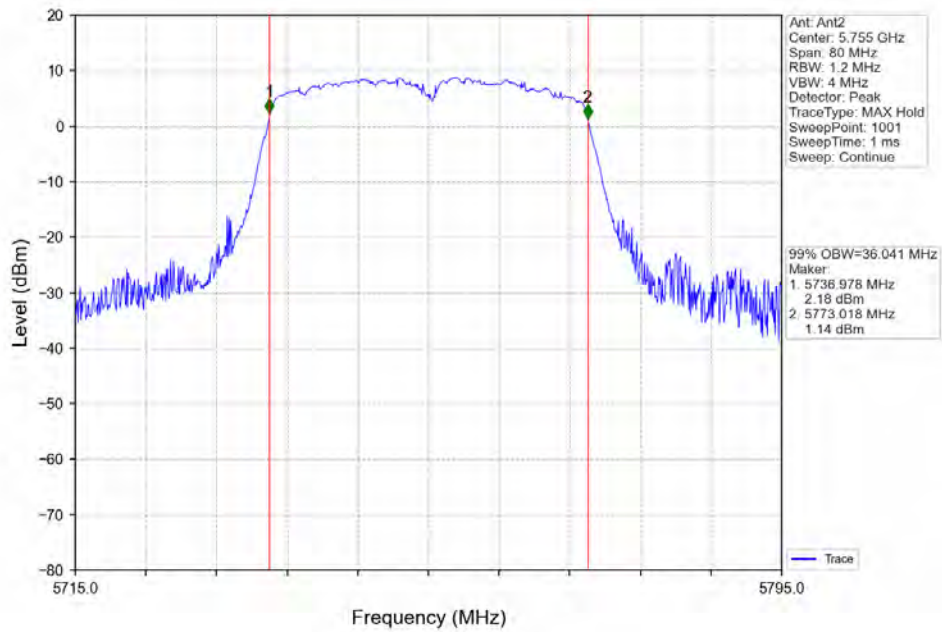
802.11ac(VHT40)\_HCH\_5230MHz\_Ant2\_NTNV



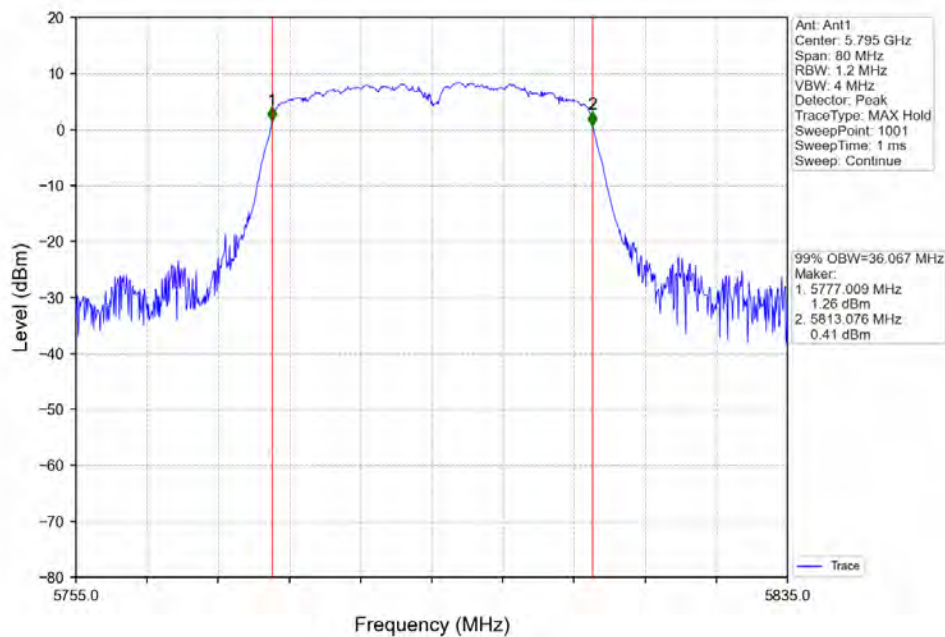
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



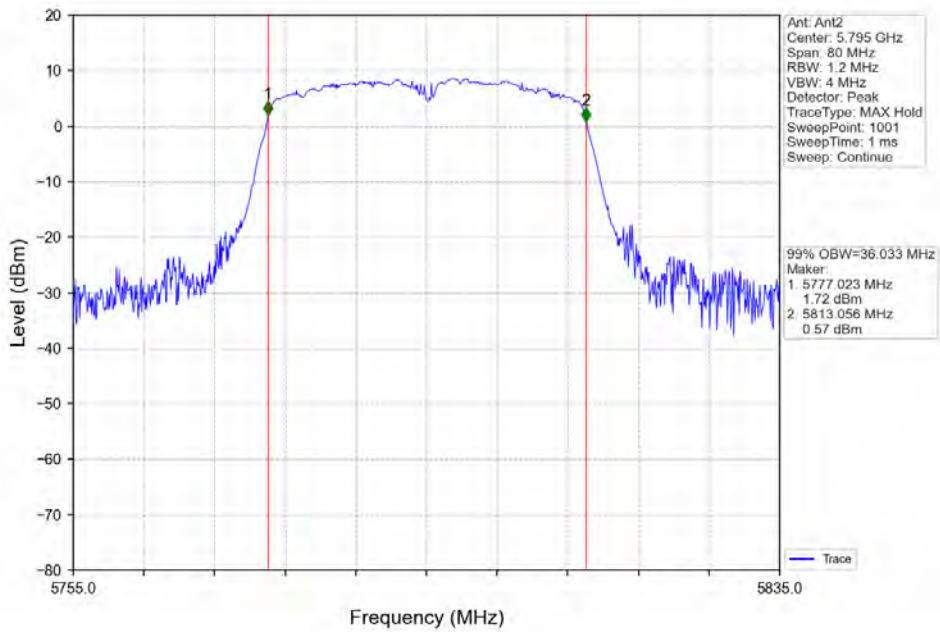
802.11ac(VHT40)\_LCH\_5755MHz\_Ant2\_NTNV



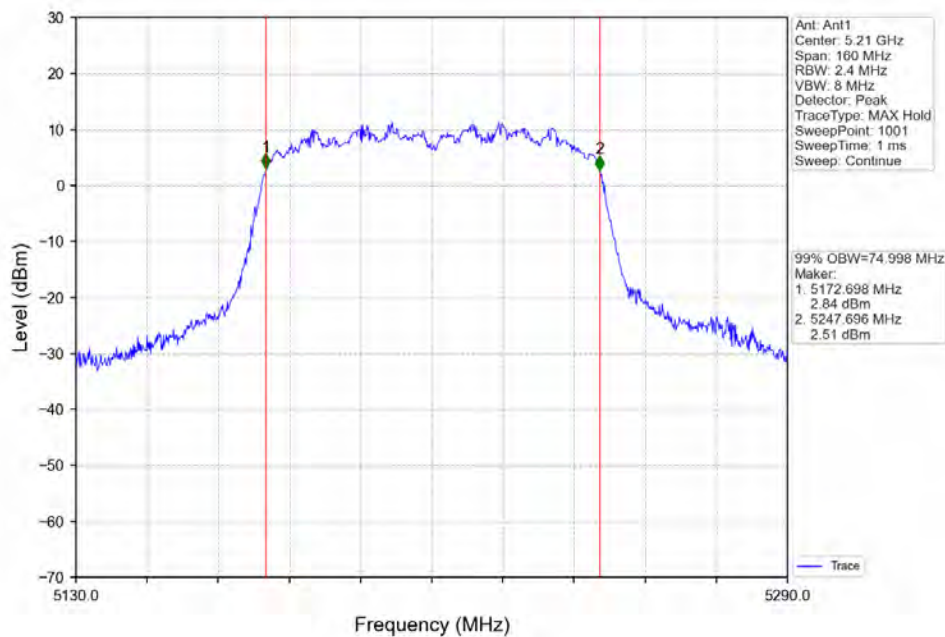
802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



802.11ac(VHT40)\_HCH\_5795MHz\_Ant2\_NTNV

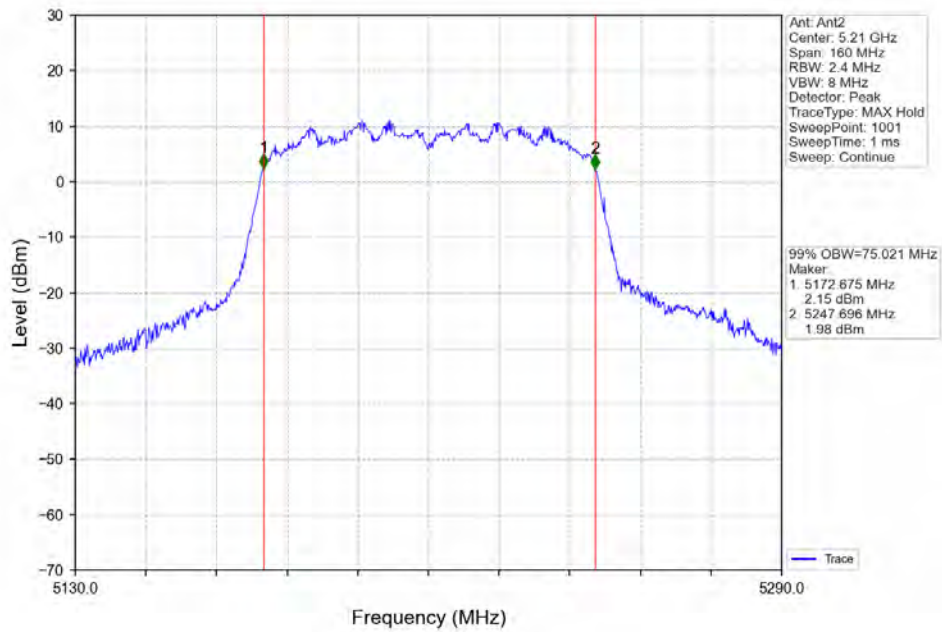


802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV

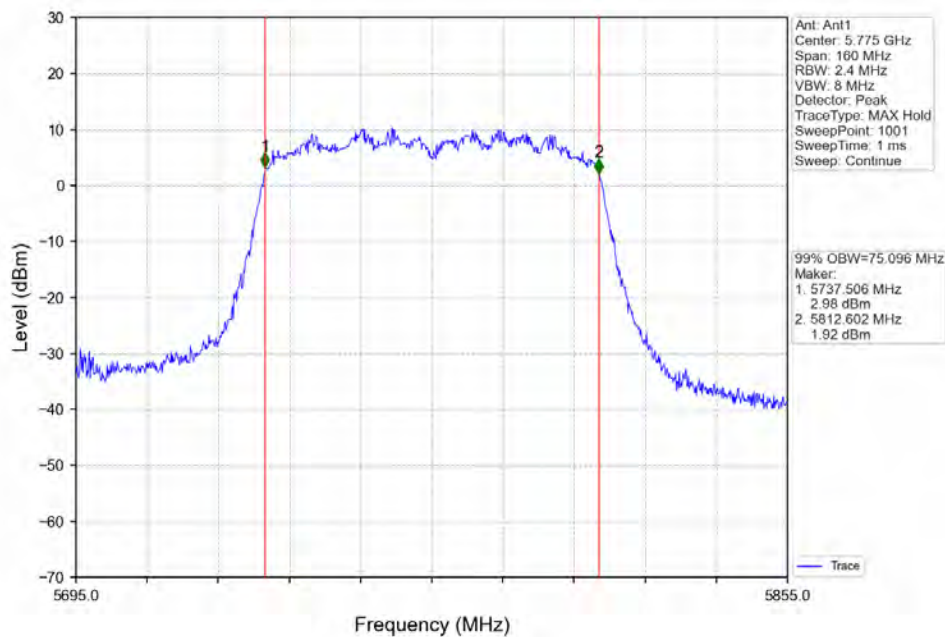


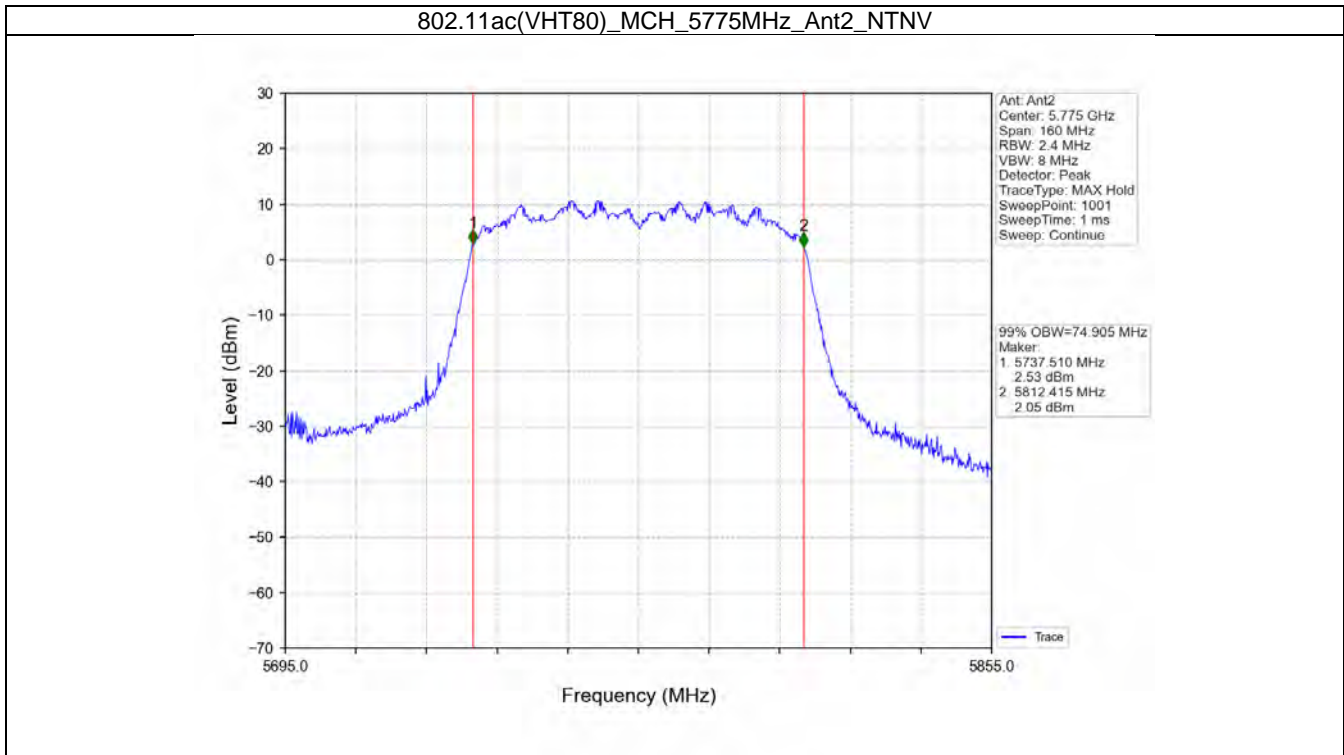


802.11ac(VHT80)\_MCH\_5210MHz\_Ant2\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV





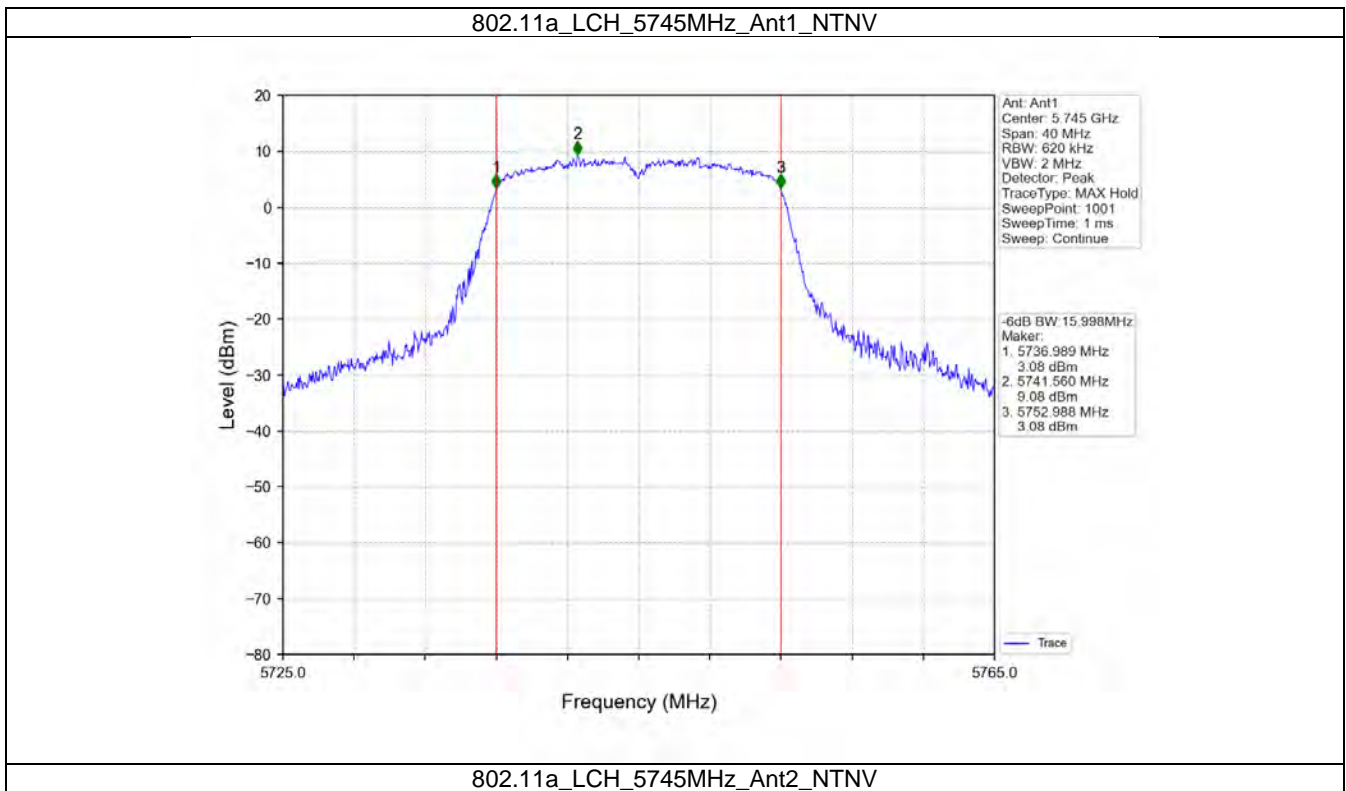
## 2.2 6dB BW

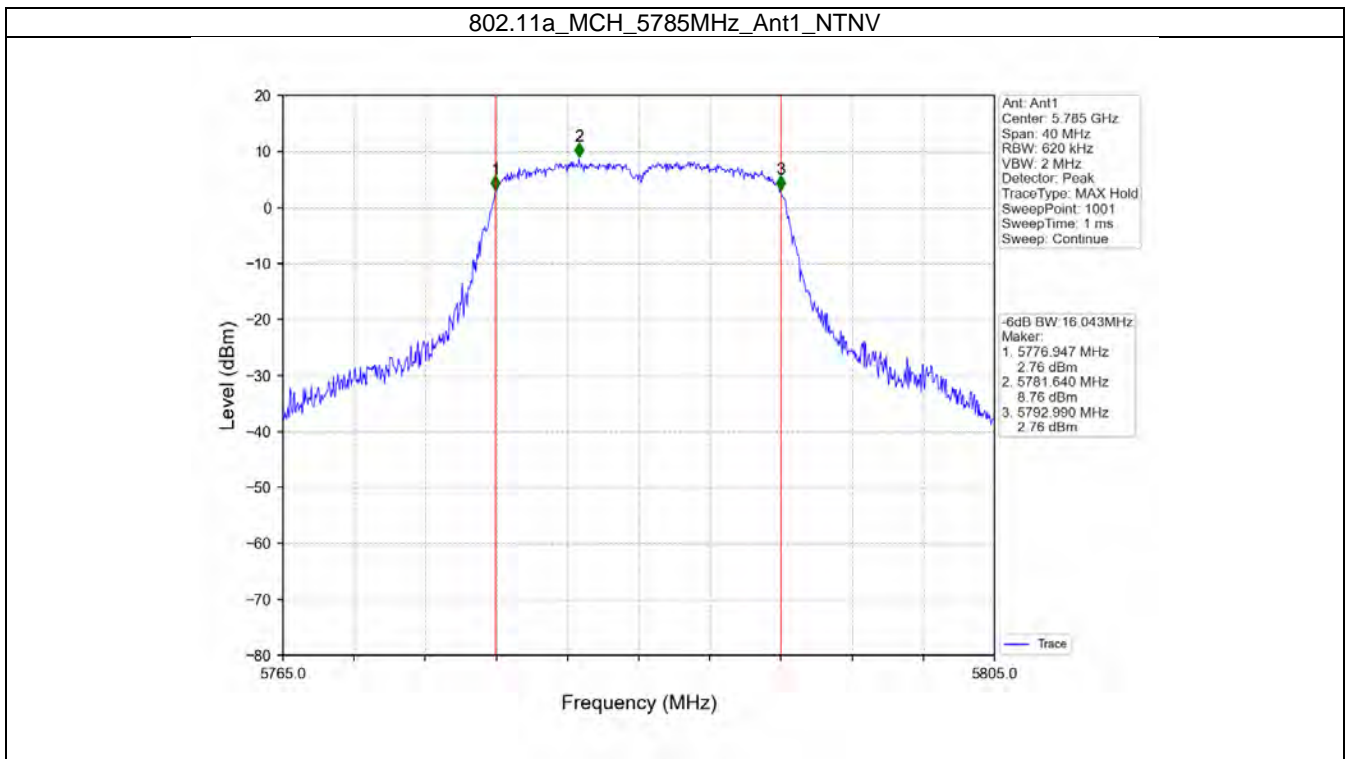
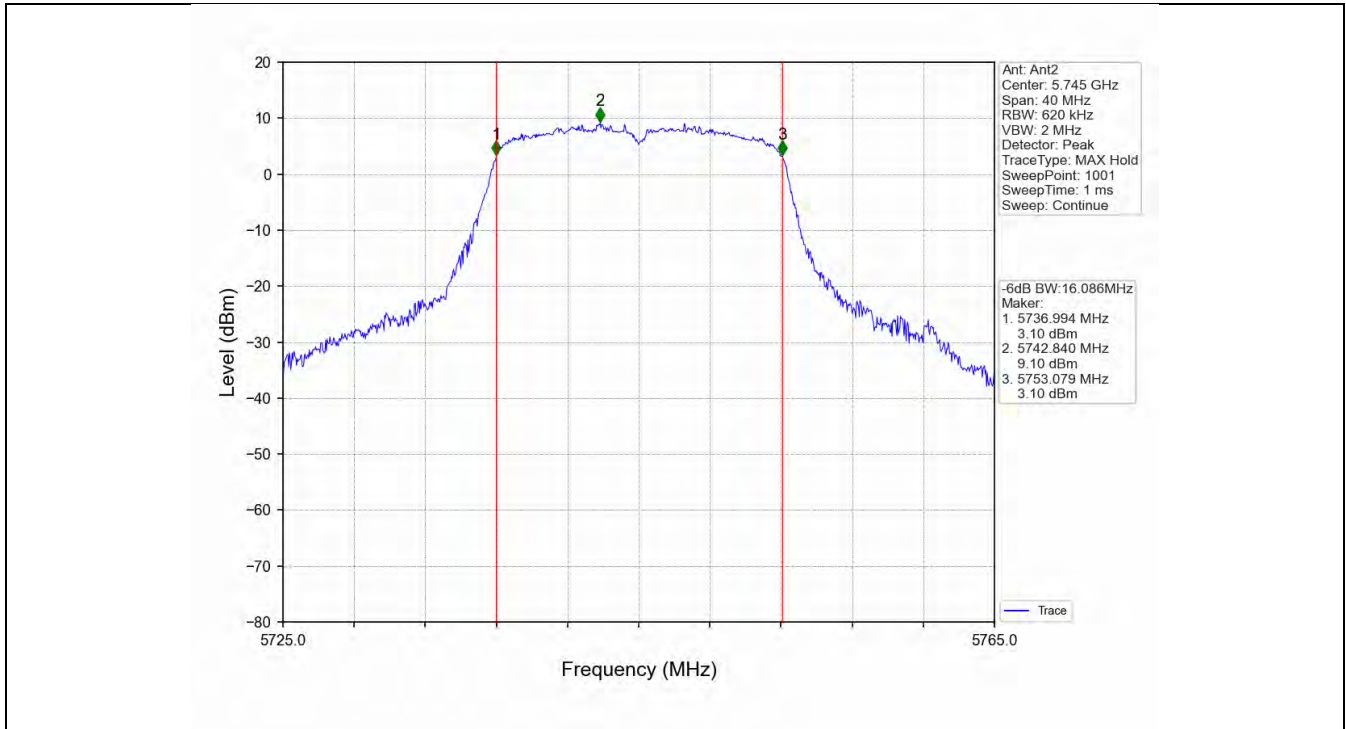
### 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	15.998	$\geq 0.5$	Pass
			2	16.086	$\geq 0.5$	Pass
		5785	1	16.043	$\geq 0.5$	Pass
			2	16.046	$\geq 0.5$	Pass
		5825	1	15.943	$\geq 0.5$	Pass
			2	15.818	$\geq 0.5$	Pass
802.11n (HT20)	MIMO	5745	1	16.983	$\geq 0.5$	Pass
			2	17.040	$\geq 0.5$	Pass
		5785	1	16.884	$\geq 0.5$	Pass
			2	16.905	$\geq 0.5$	Pass
		5825	1	16.838	$\geq 0.5$	Pass
			2	16.893	$\geq 0.5$	Pass
802.11n (HT40)	MIMO	5755	1	35.699	$\geq 0.5$	Pass
			2	36.806	$\geq 0.5$	Pass
		5795	1	35.690	$\geq 0.5$	Pass
			2	36.783	$\geq 0.5$	Pass
802.11ac (VHT20)	MIMO	5745	1	16.825	$\geq 0.5$	Pass
			2	17.045	$\geq 0.5$	Pass
		5785	1	17.075	$\geq 0.5$	Pass

			2	17.059	$\geq -0.5$	Pass
		5825	1	16.788	$\geq -0.5$	Pass
			2	16.921	$\geq -0.5$	Pass
802.11ac (VHT40)	MIMO	5755	1	35.619	$\geq -0.5$	Pass
			2	35.658	$\geq -0.5$	Pass
		5795	1	35.505	$\geq -0.5$	Pass
			2	35.686	$\geq -0.5$	Pass
802.11ac (VHT80)	MIMO	5775	1	72.146	$\geq -0.5$	Pass
			2	73.079	$\geq -0.5$	Pass

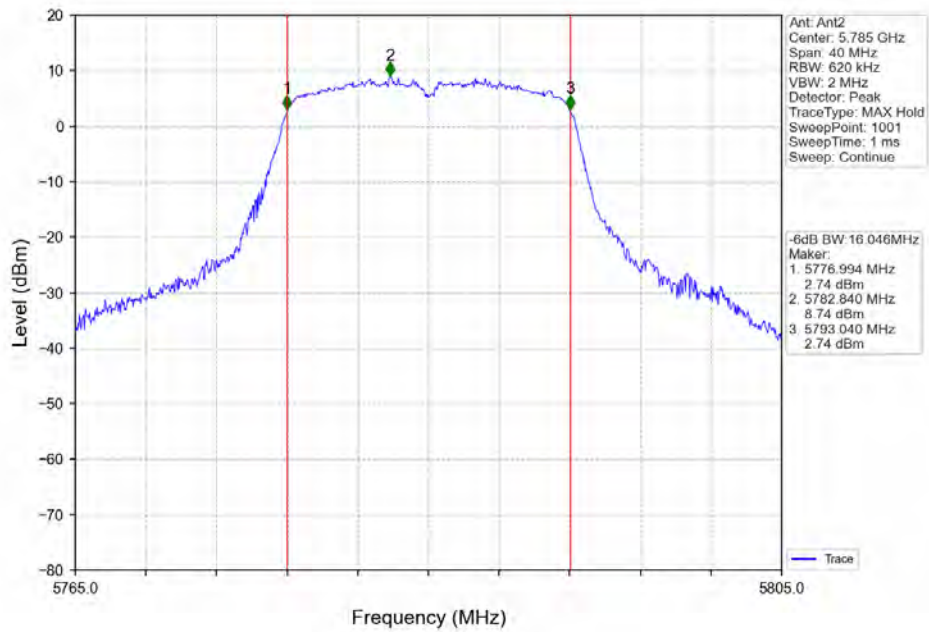
### 2.2.2 Test Graph



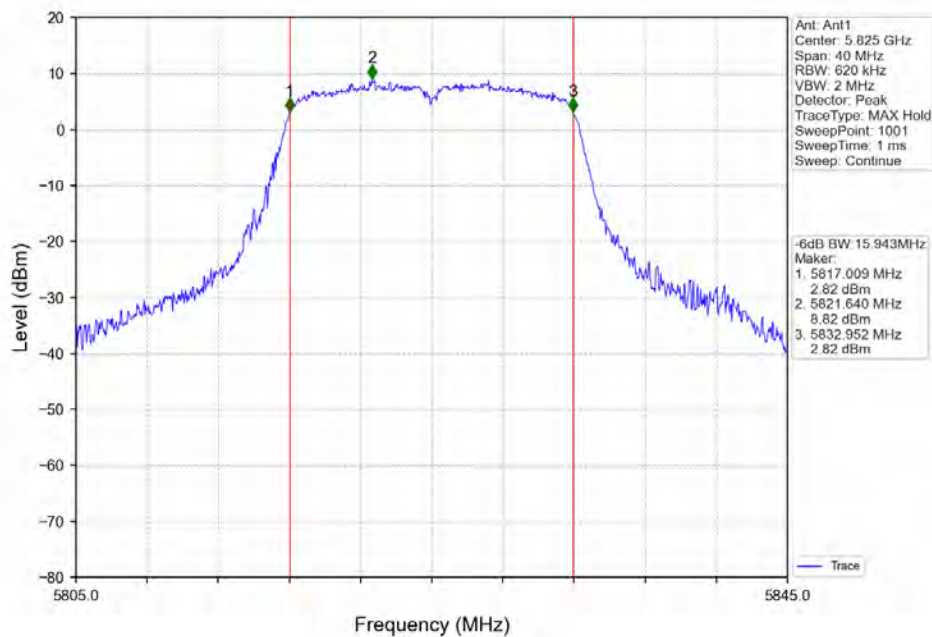




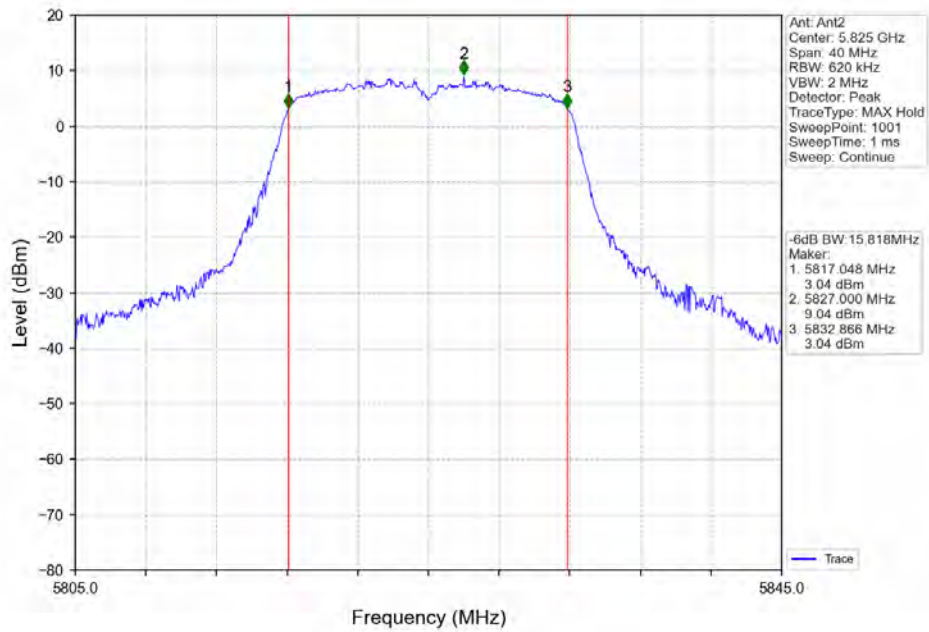
802.11a\_MCH\_5785MHz\_Ant2\_NTNV



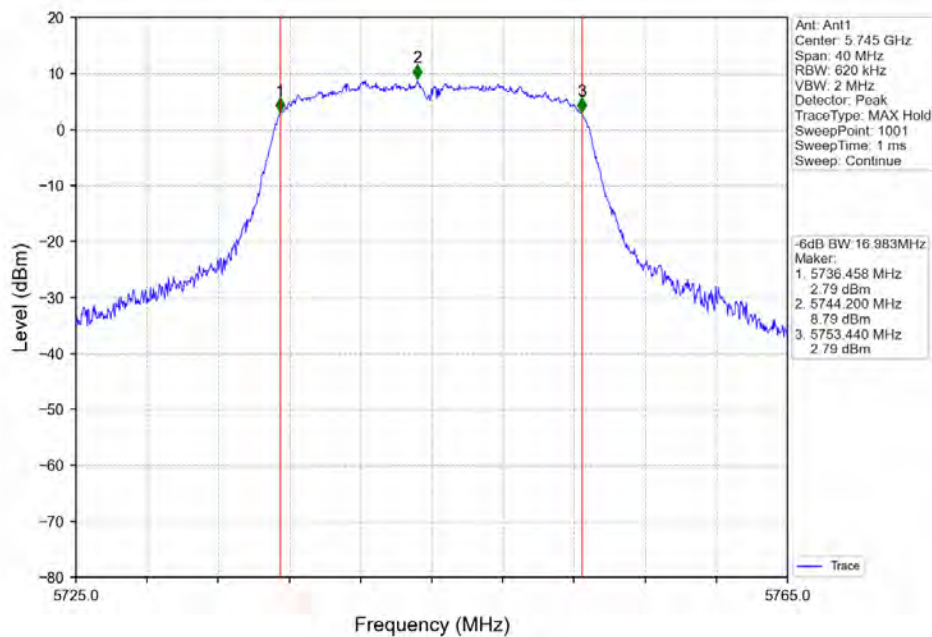
802.11a\_HCH\_5825MHz\_Ant1\_NTNV



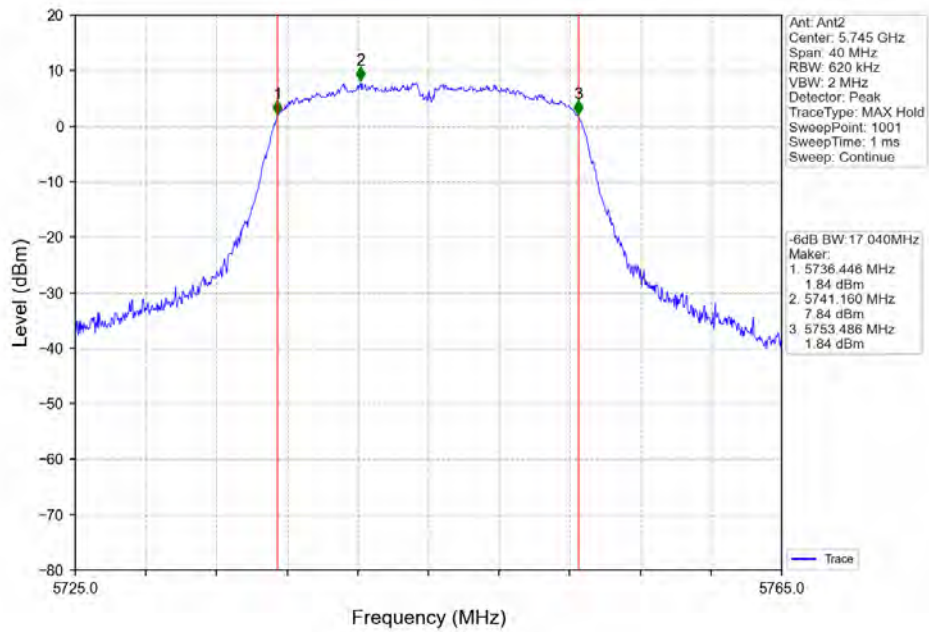
802.11a\_HCH\_5825MHz\_Ant2\_NTNV



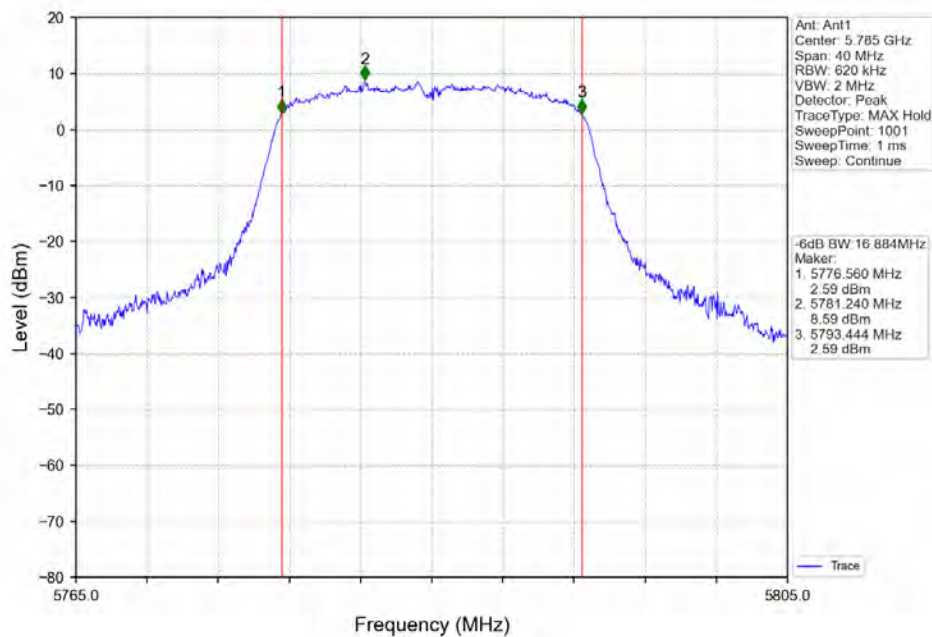
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



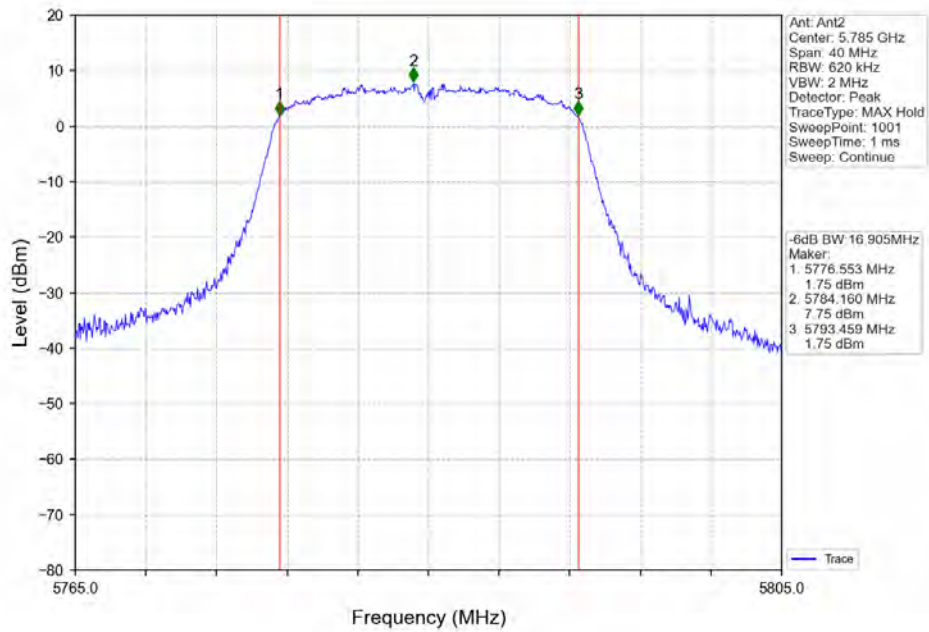
802.11n(HT20)\_LCH\_5745MHz\_Ant2\_NTNV



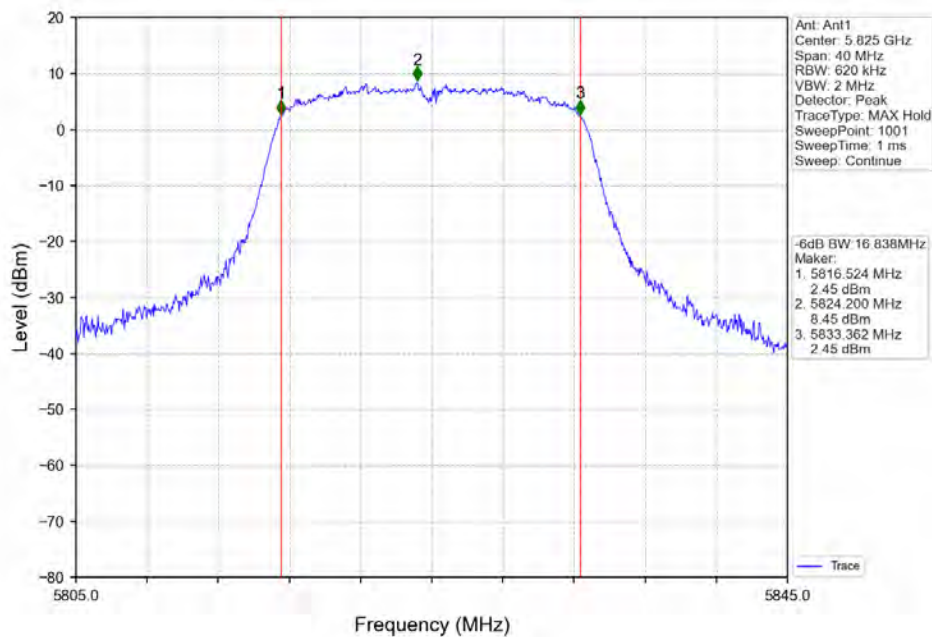
802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



802.11n(HT20)\_MCH\_5785MHz\_Ant2\_NTNV

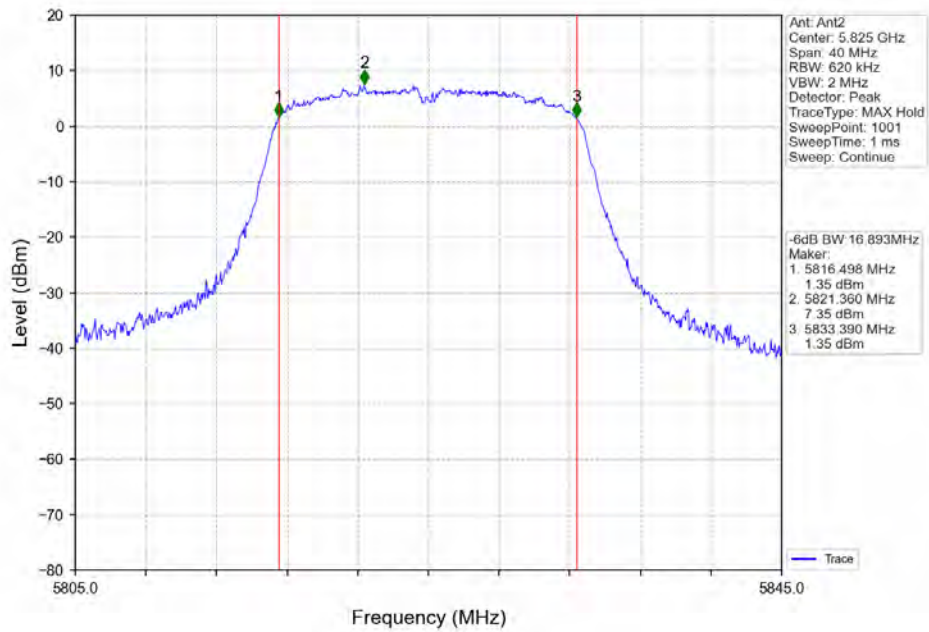


802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV

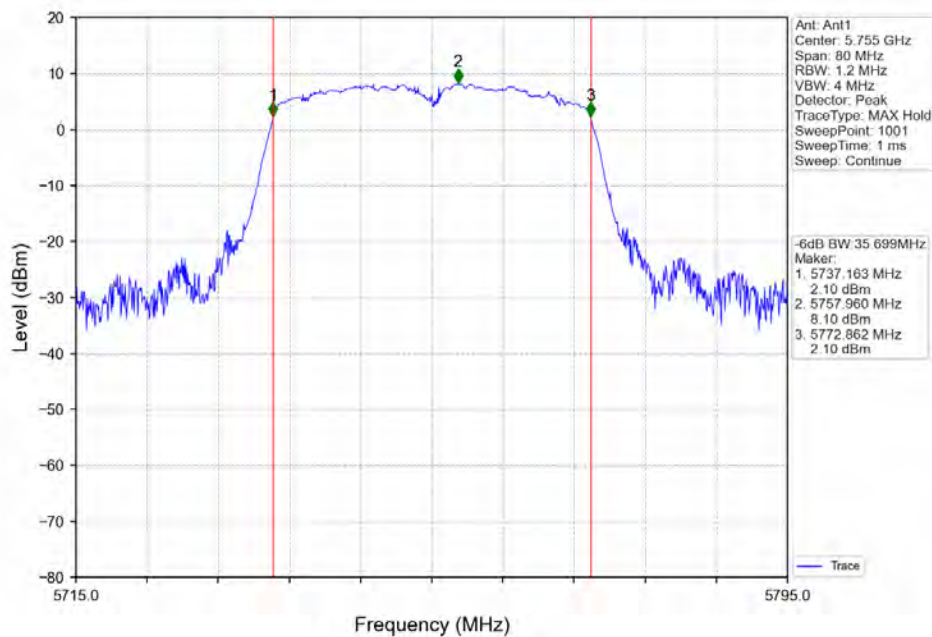




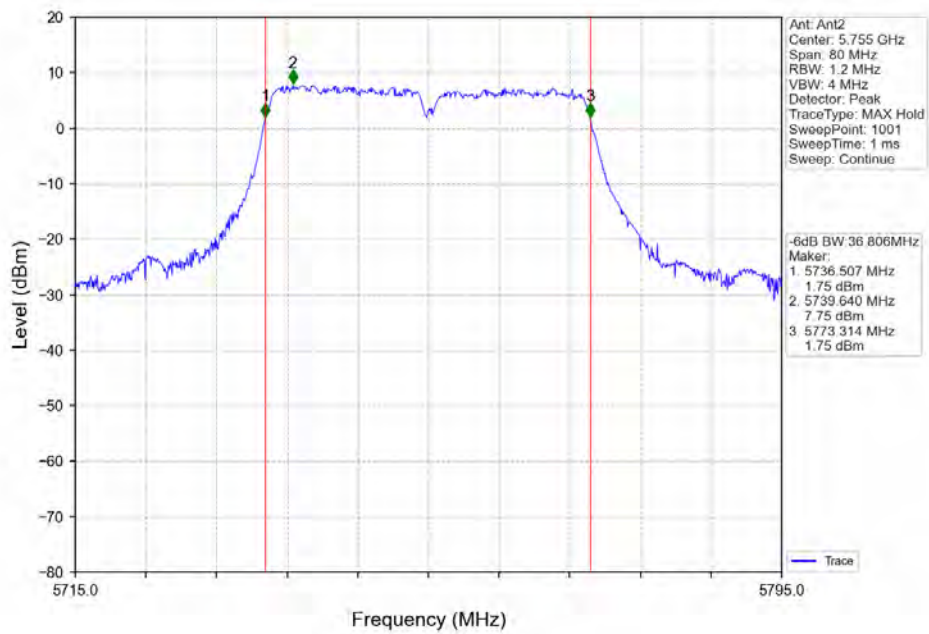
802.11n(HT20)\_HCH\_5825MHz\_Ant2\_NTNV



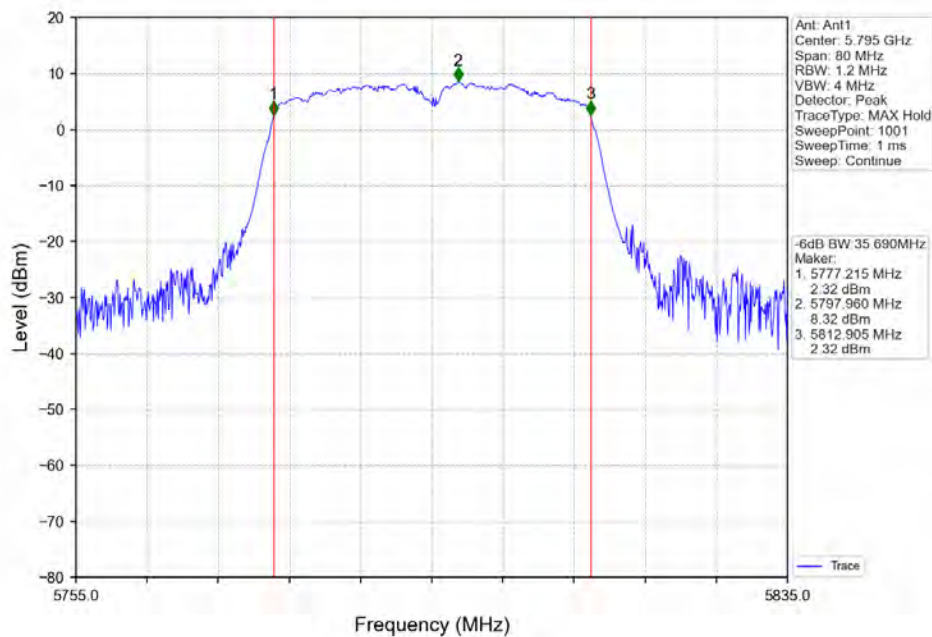
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



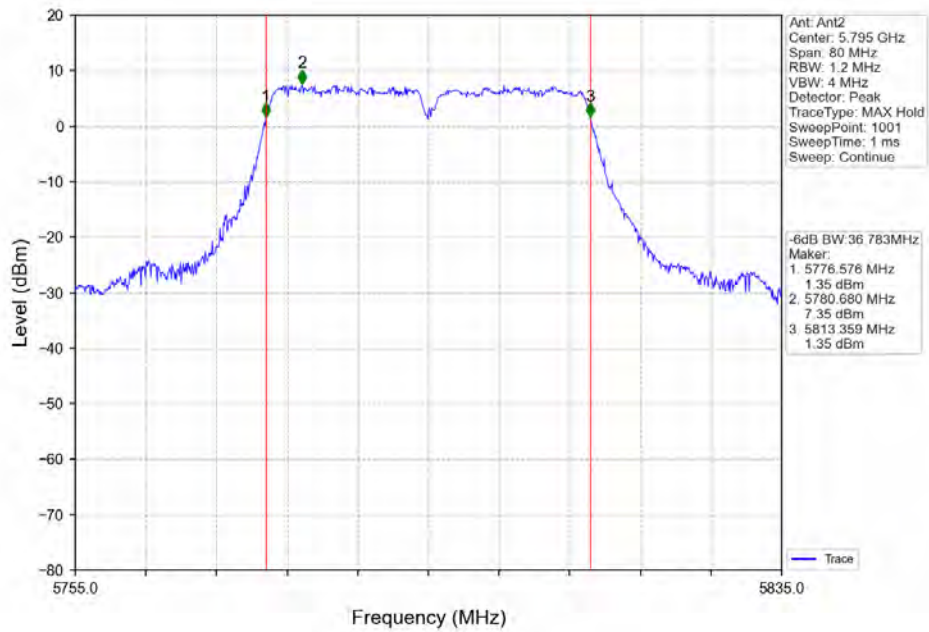
802.11n(HT40)\_LCH\_5755MHz\_Ant2\_NTNV



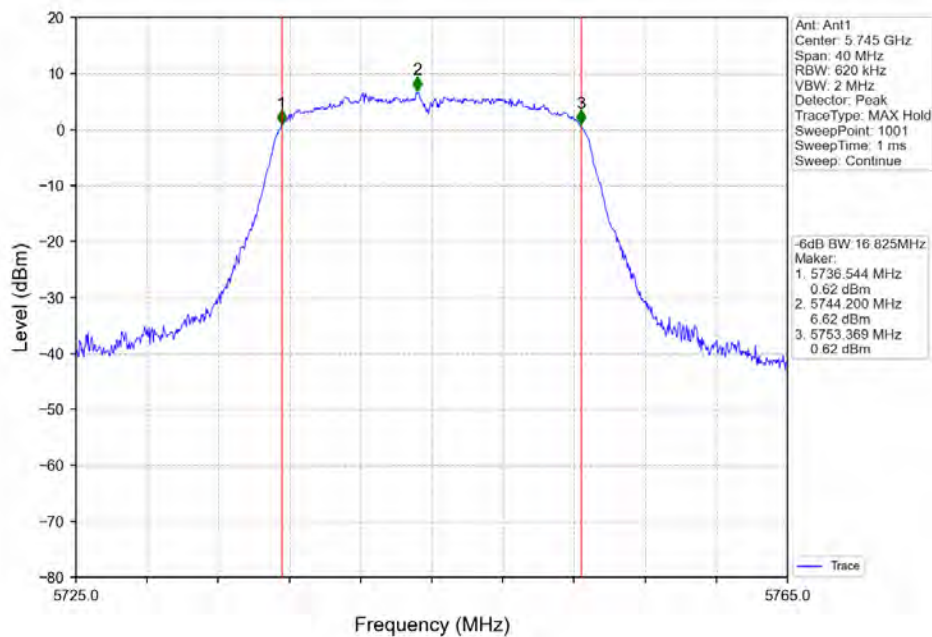
802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



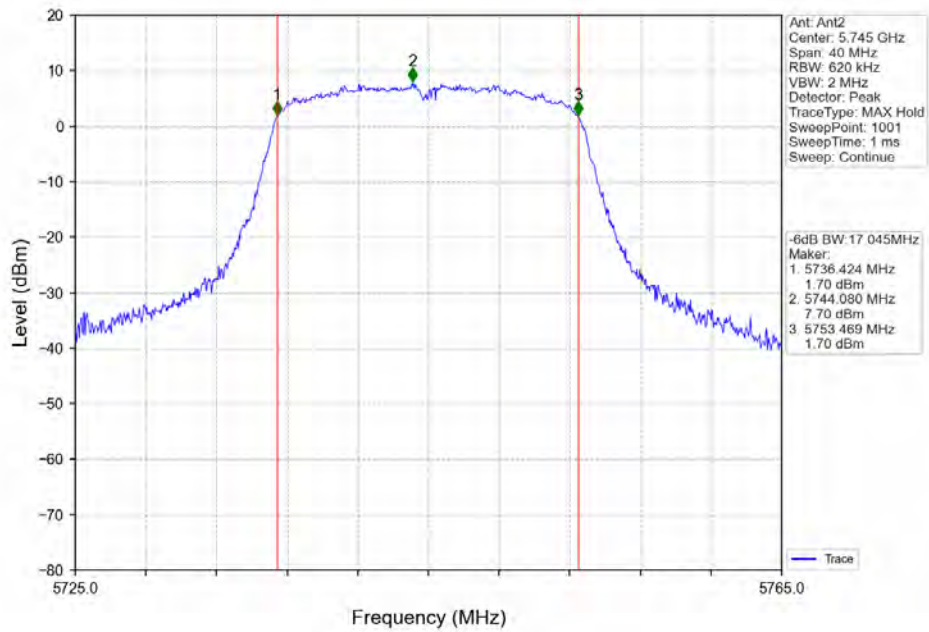
802.11n(HT40)\_HCH\_5795MHz\_Ant2\_NTNV



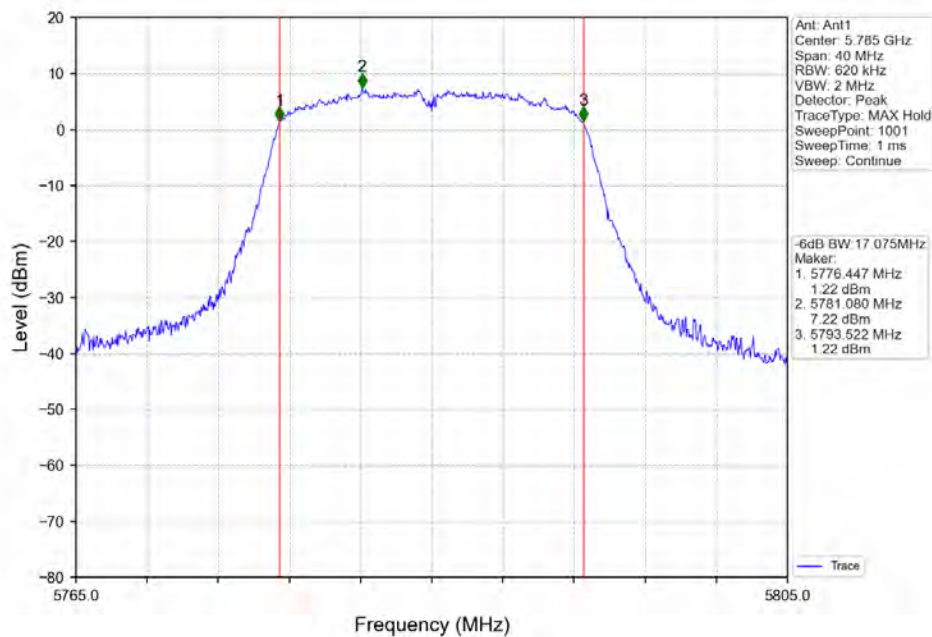
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



802.11ac(VHT20)\_LCH\_5745MHz\_Ant2\_NTNV

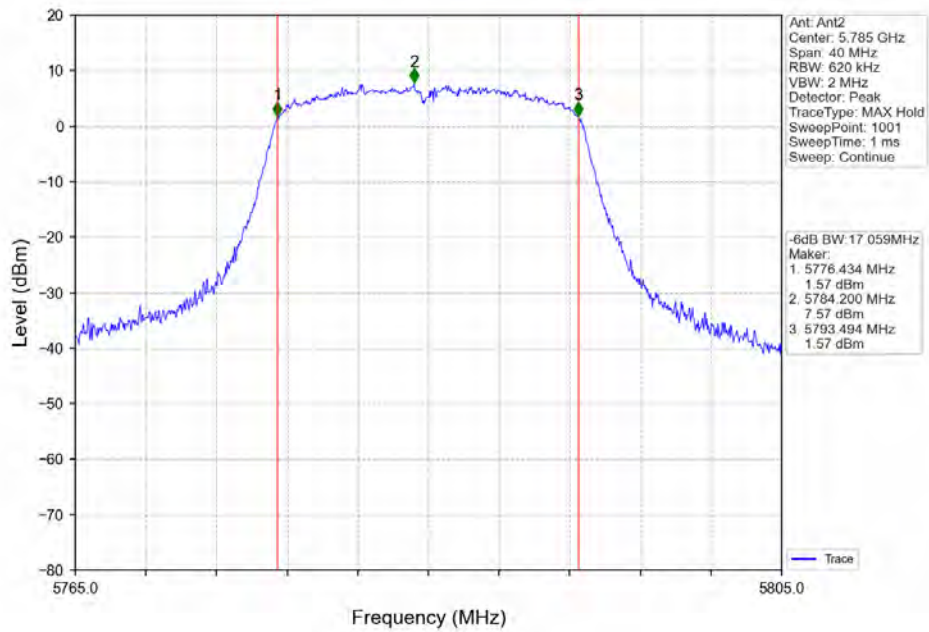


802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV

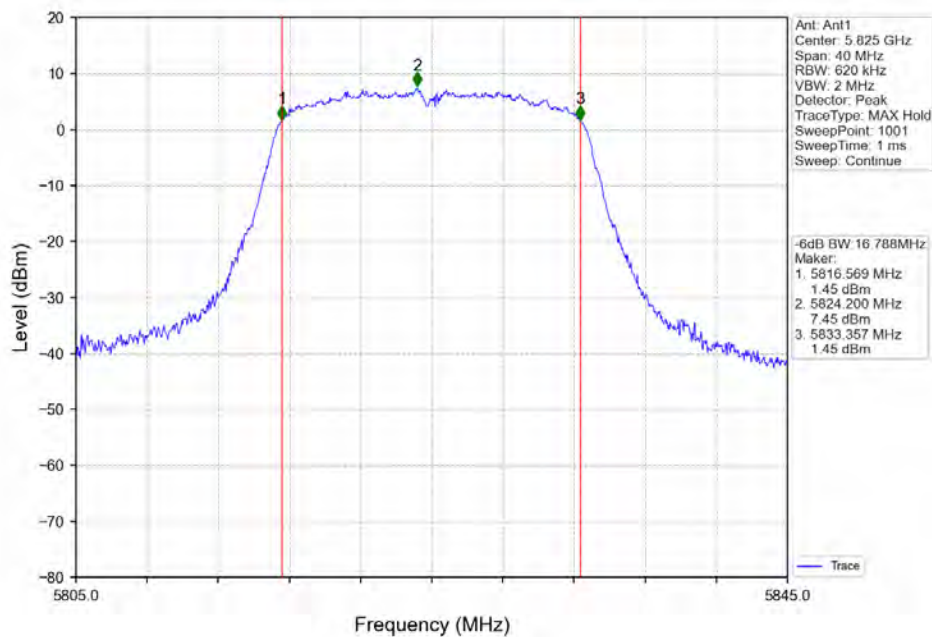




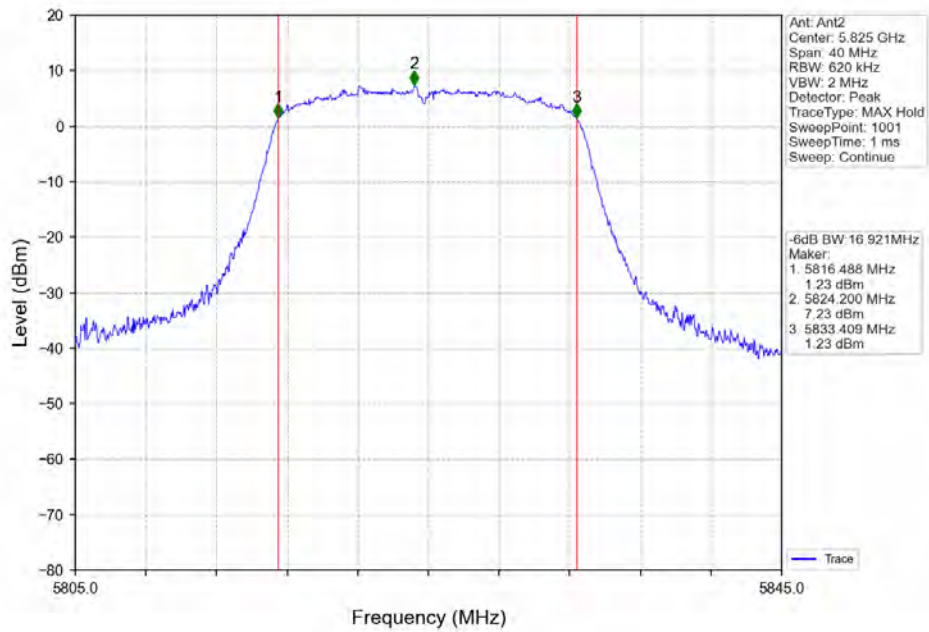
802.11ac(VHT20)\_MCH\_5785MHz\_Ant2\_NTNV



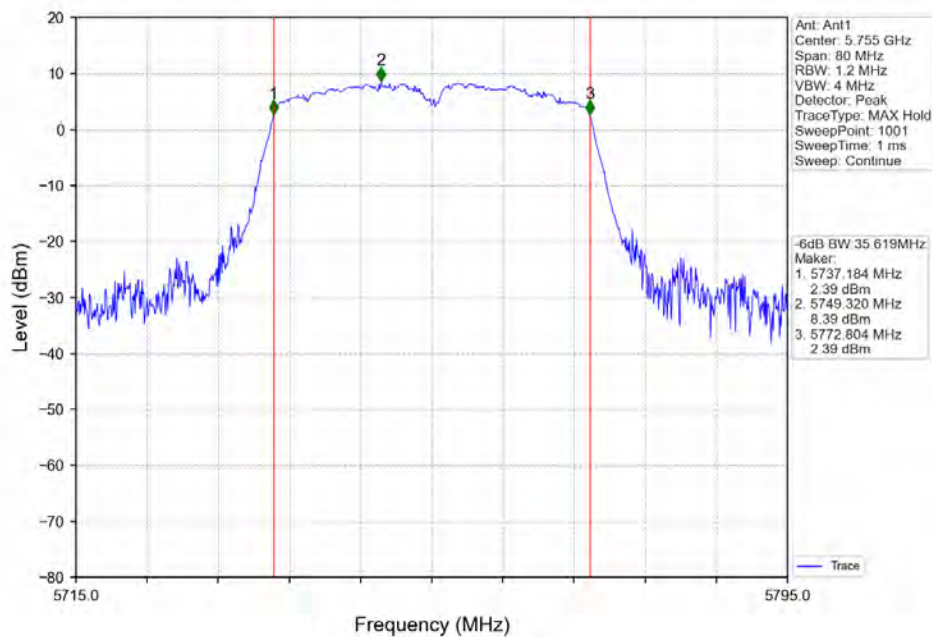
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



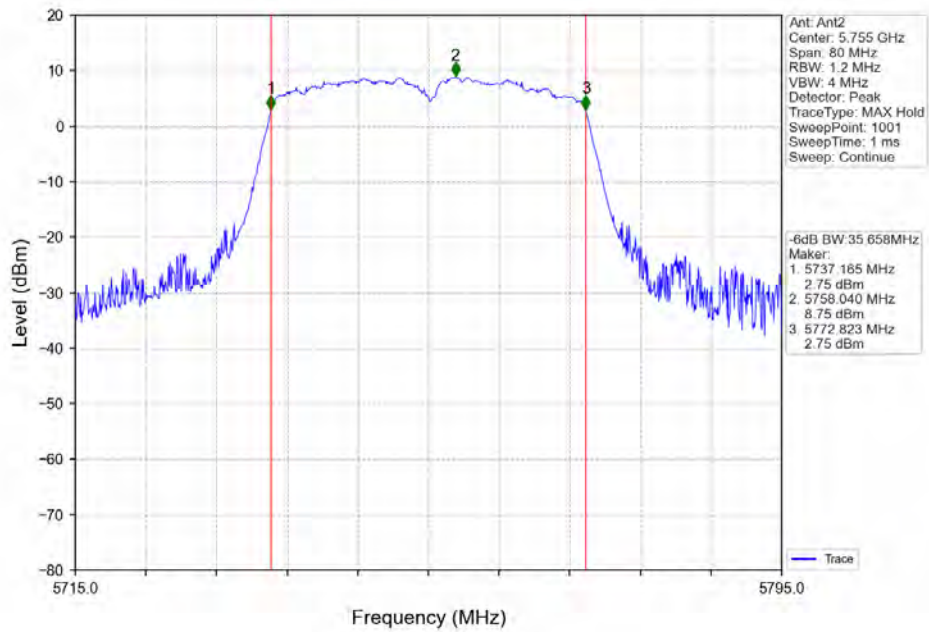
802.11ac(VHT20)\_HCH\_5825MHz\_Ant2\_NTNV



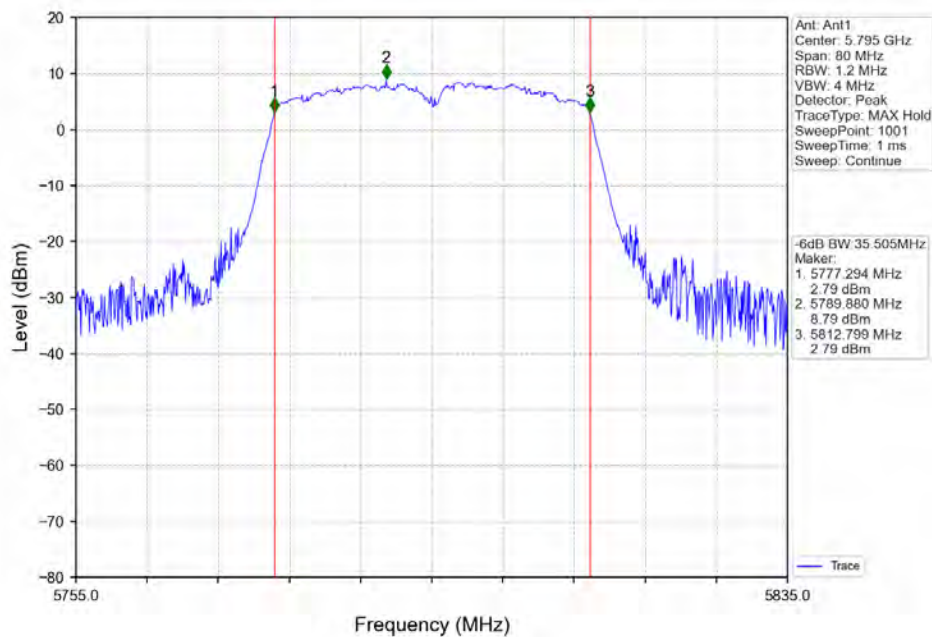
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



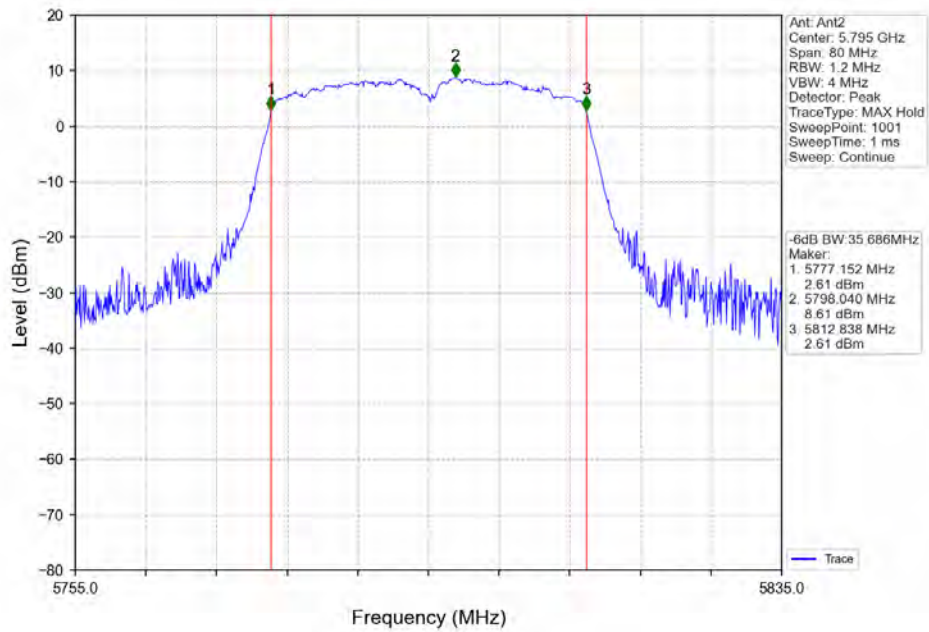
802.11ac(VHT40)\_LCH\_5755MHz\_Ant2\_NTNV



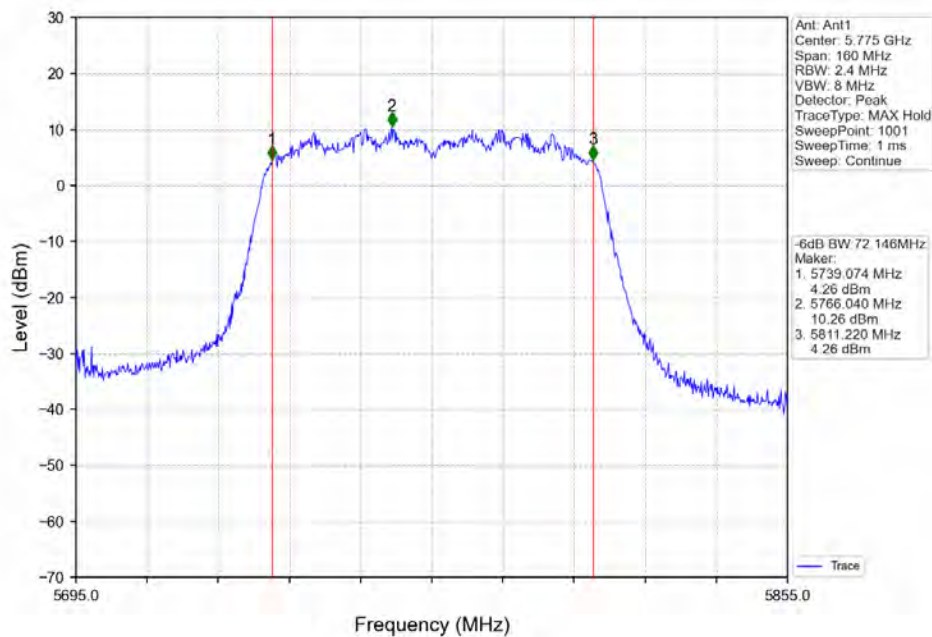
802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



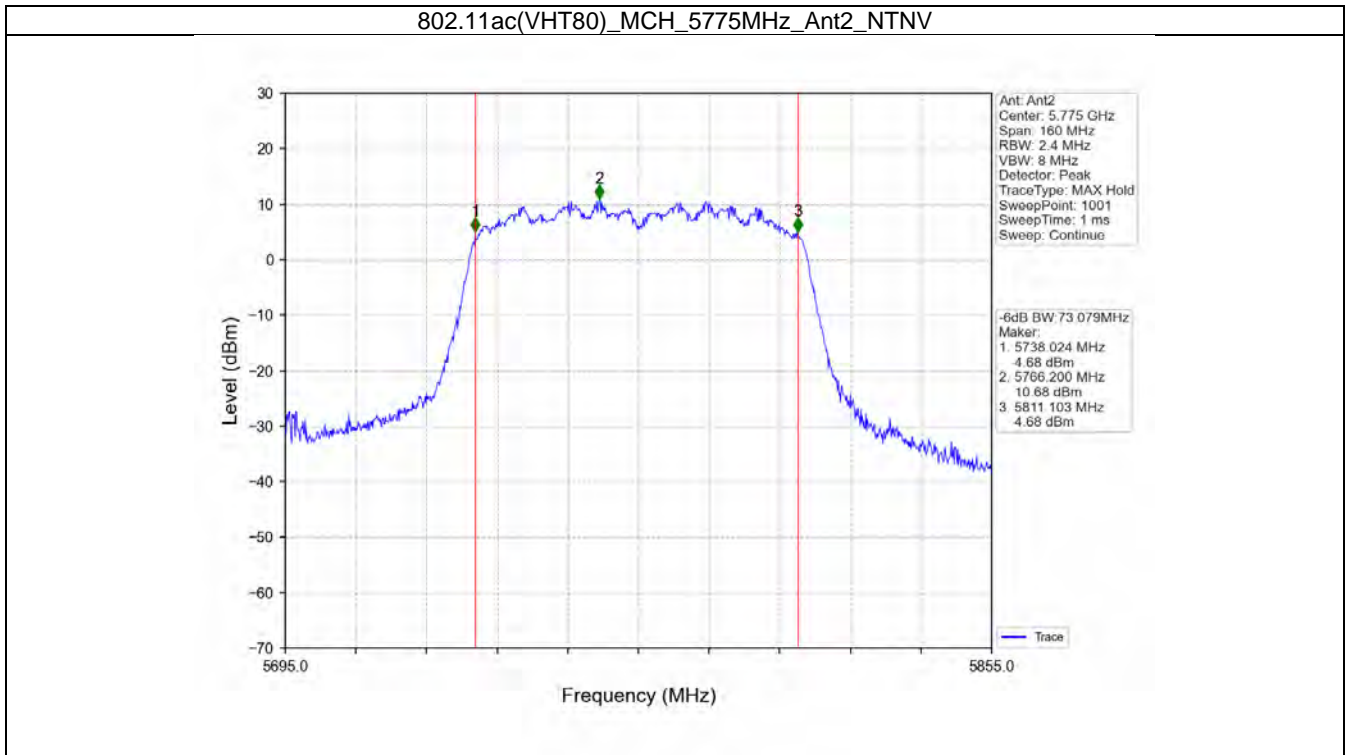
802.11ac(VHT40)\_HCH\_5795MHz\_Ant2\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV







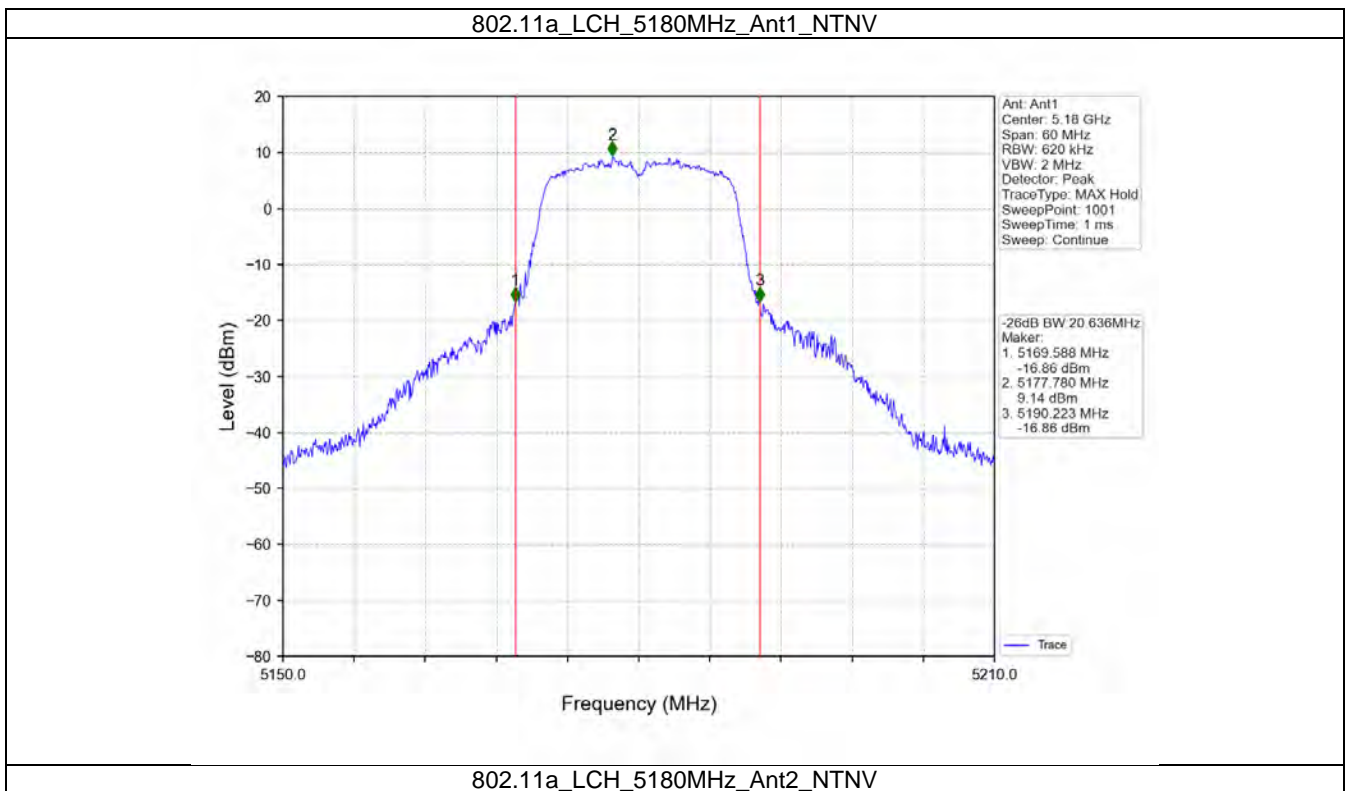
## 2.3 26dB BW

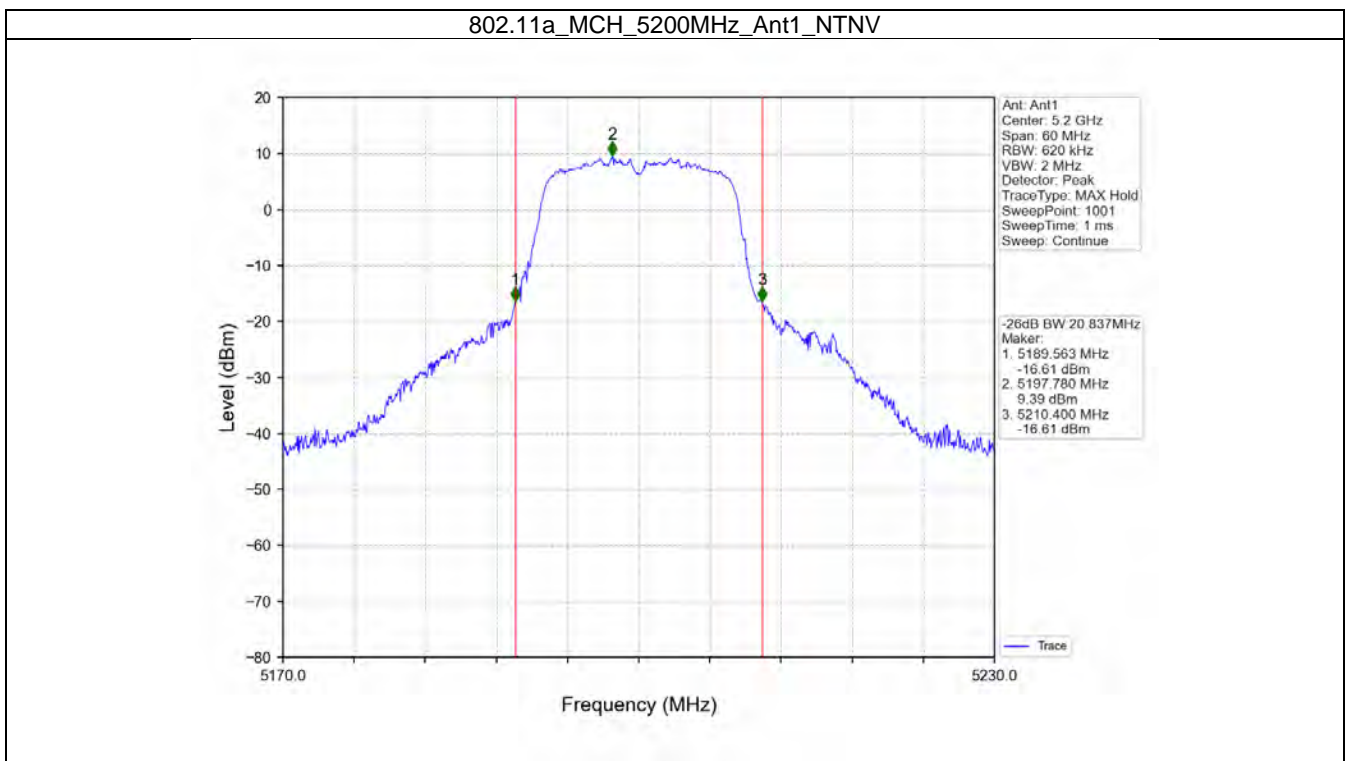
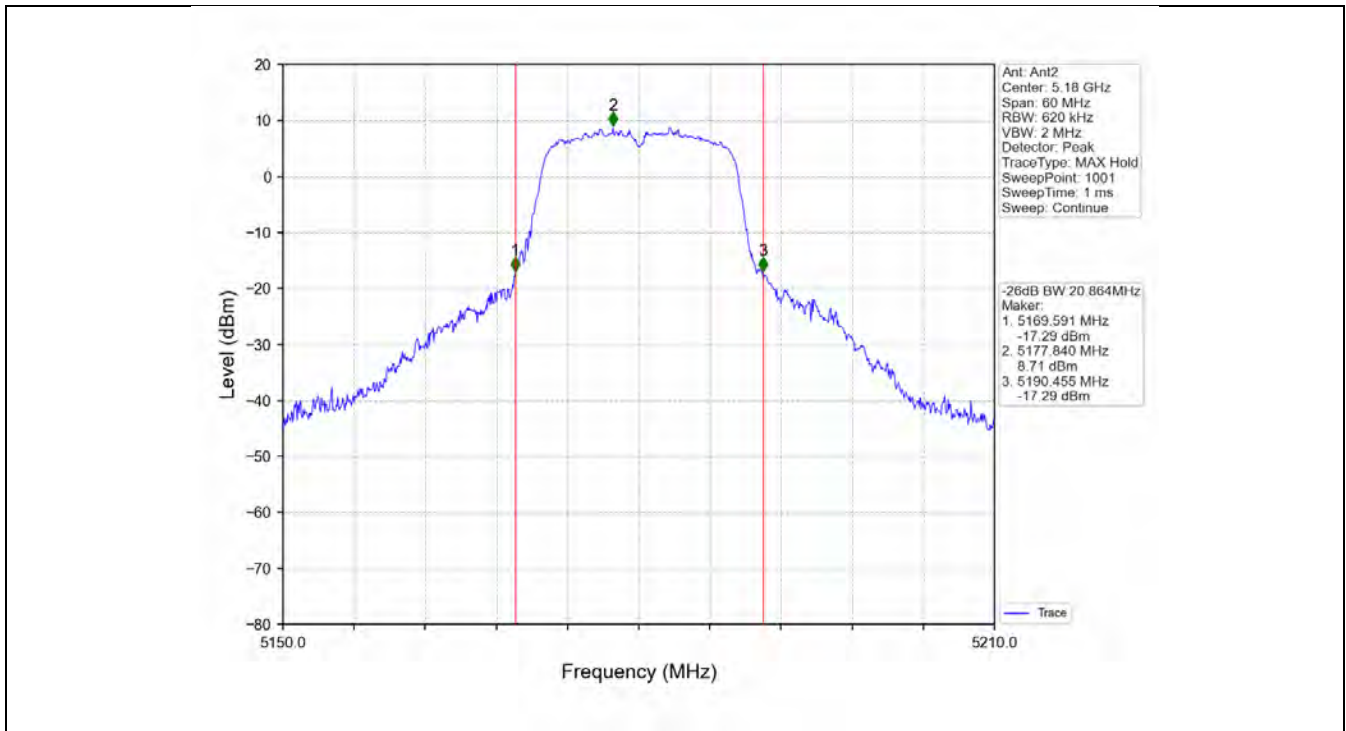
### 2.3.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	26dB Bandwidth (MHz)		Verdict
				Result		
802.11a	SISO	5180	1	20.636	Pass	
			2	20.864	Pass	
		5200	1	20.837	Pass	
			2	20.840	Pass	
		5240	1	19.770	Pass	
			2	21.167	Pass	
802.11n (HT20)	MIMO	5180	1	21.033	Pass	
			2	20.897	Pass	
		5200	1	21.030	Pass	
			2	20.996	Pass	
		5240	1	20.890	Pass	
			2	20.948	Pass	
802.11n (HT40)	MIMO	5190	1	41.870	Pass	
			2	41.895	Pass	
		5230	1	43.496	Pass	
			2	41.838	Pass	
802.11ac (VHT20)	MIMO	5180	1	21.176	Pass	
			2	20.918	Pass	
		5200	1	20.666	Pass	

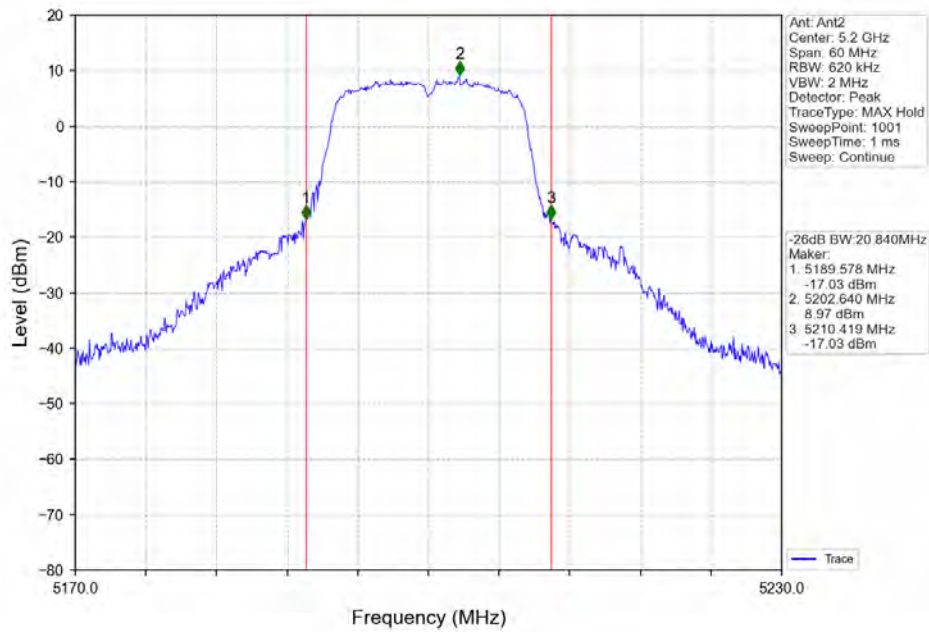
			2	20.858	Pass
		5240	1	20.819	Pass
			2	20.939	Pass
802.11ac (VHT40)	MIMO	5190	1	41.902	Pass
			2	41.832	Pass
		5230	1	43.593	Pass
			2	41.743	Pass
802.11ac (VHT80)	MIMO	5210	1	85.029	Pass
			2	84.292	Pass

### 2.3.2 Test Graph

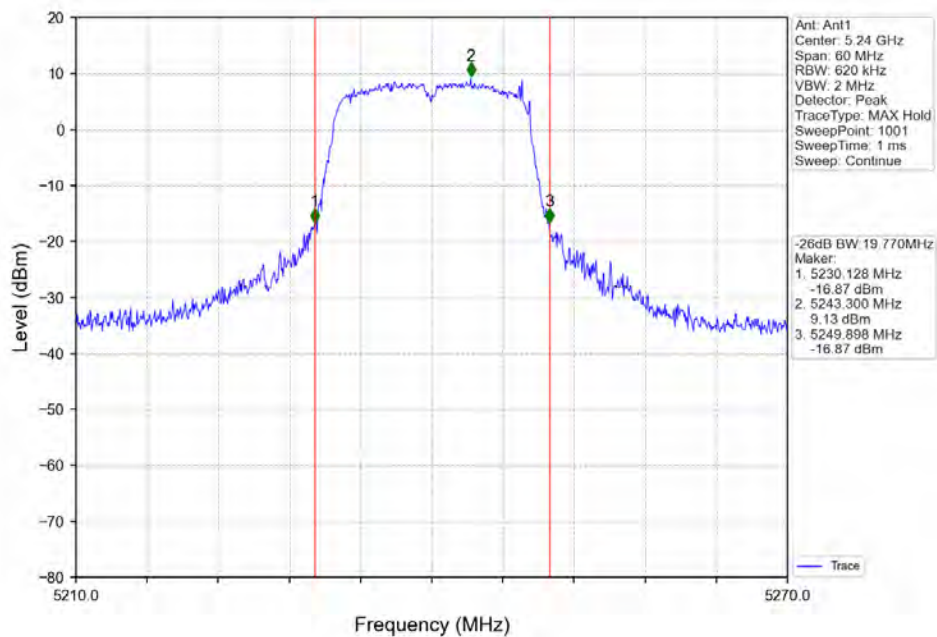




802.11a\_MCH\_5200MHz\_Ant2\_NTNV

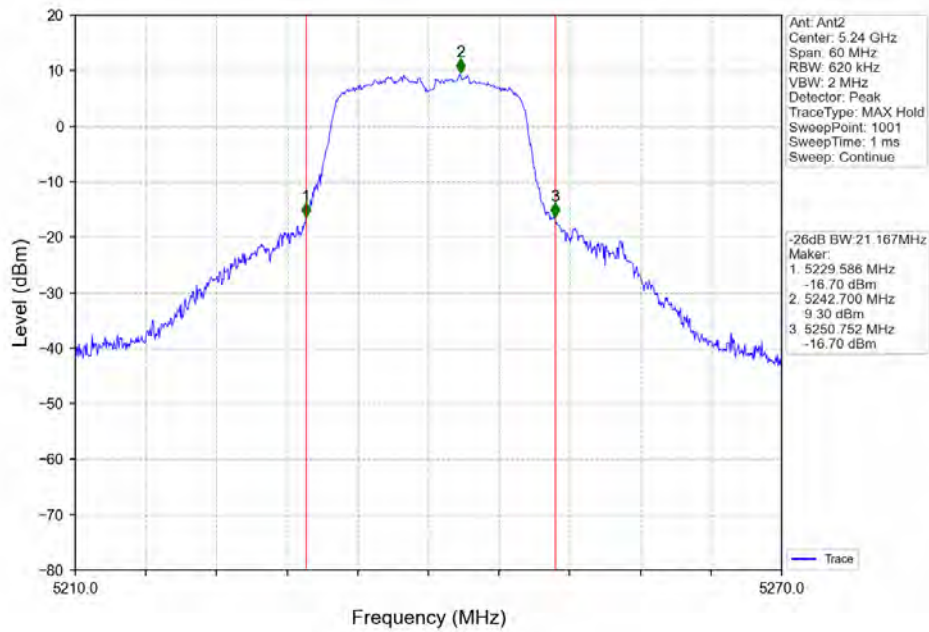


802.11a\_HCH\_5240MHz\_Ant1\_NTNV

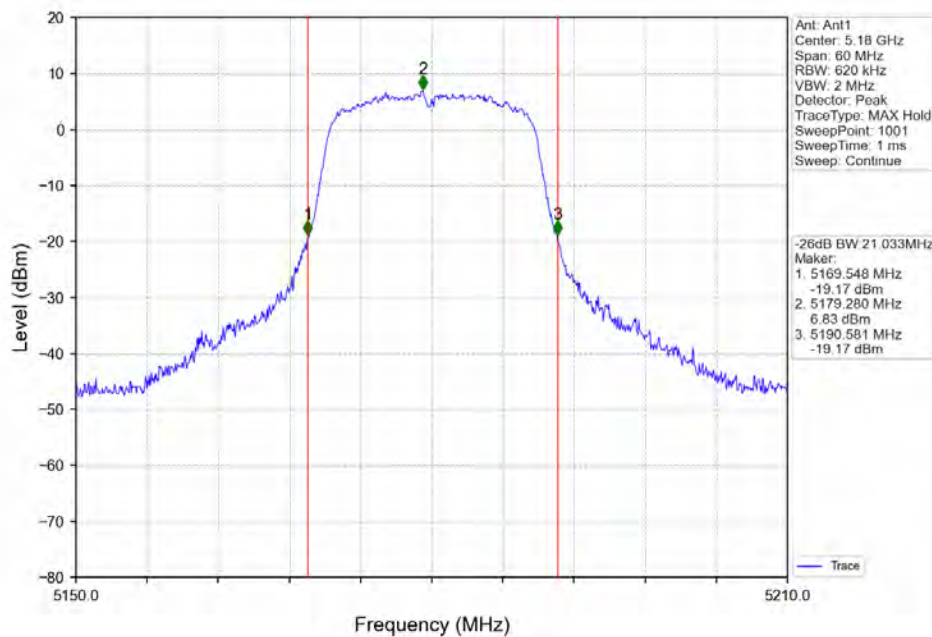




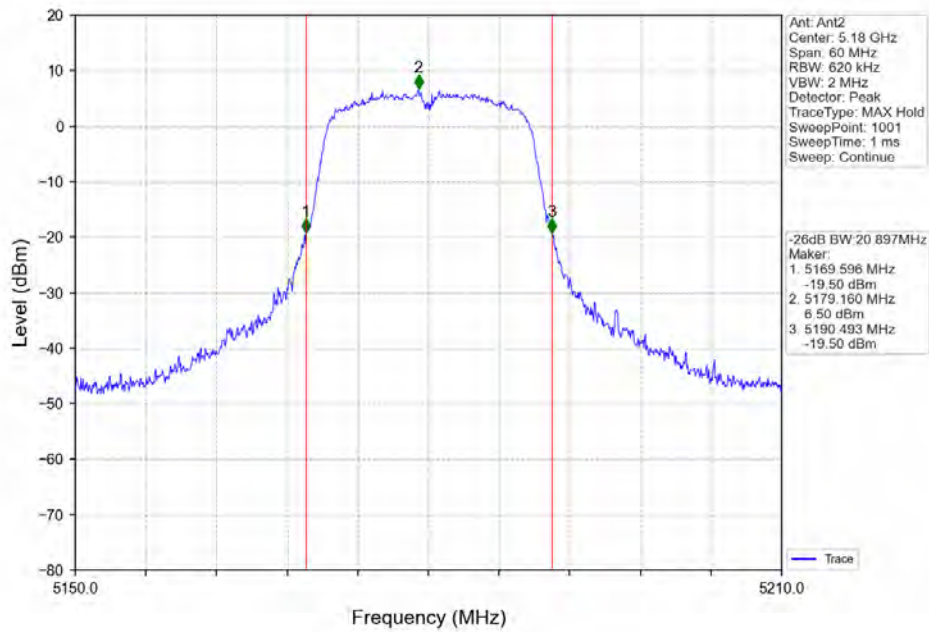
802.11a\_HCH\_5240MHz\_Ant2\_NTNV



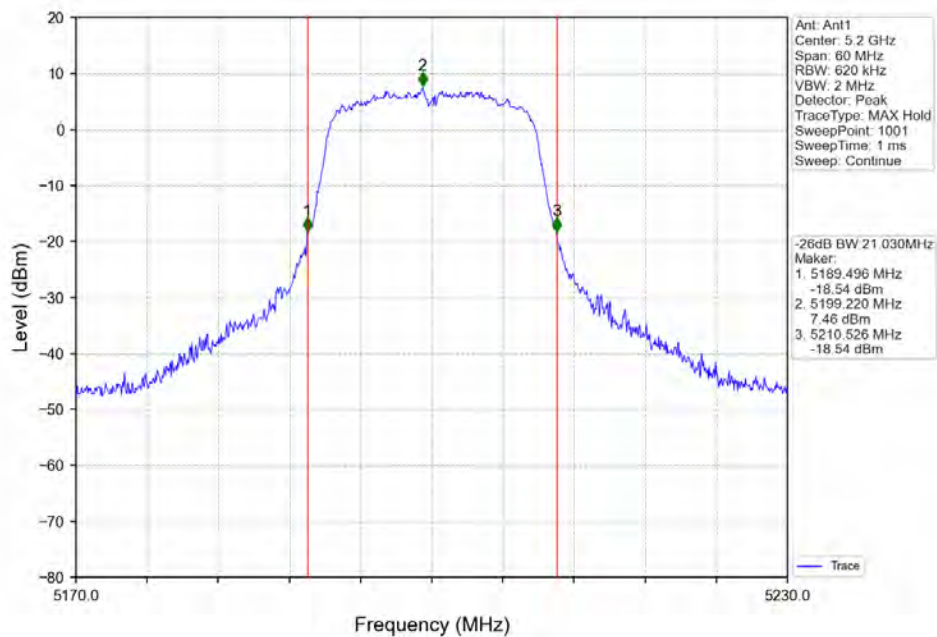
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



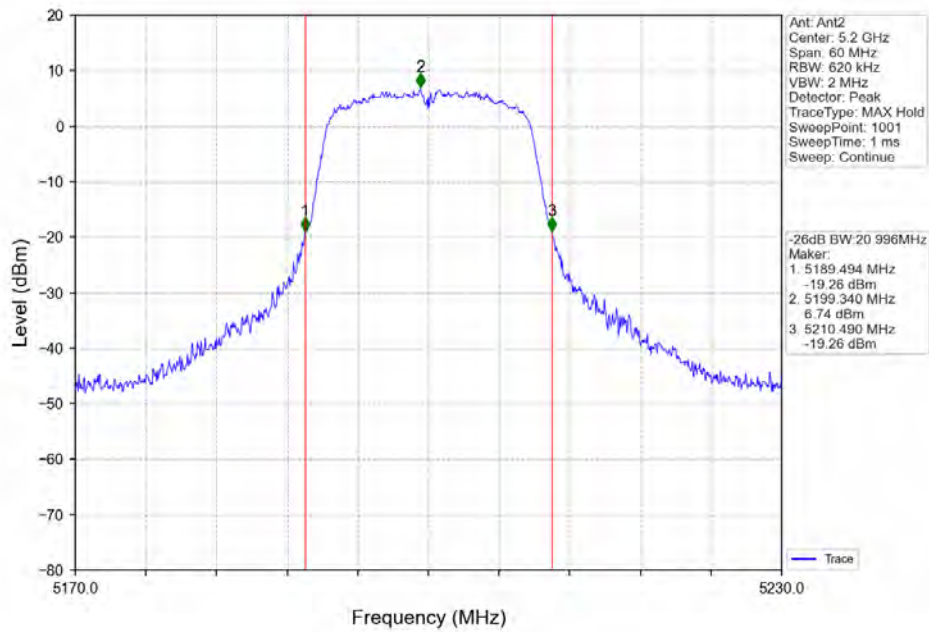
802.11n(HT20)\_LCH\_5180MHz\_Ant2\_NTNV



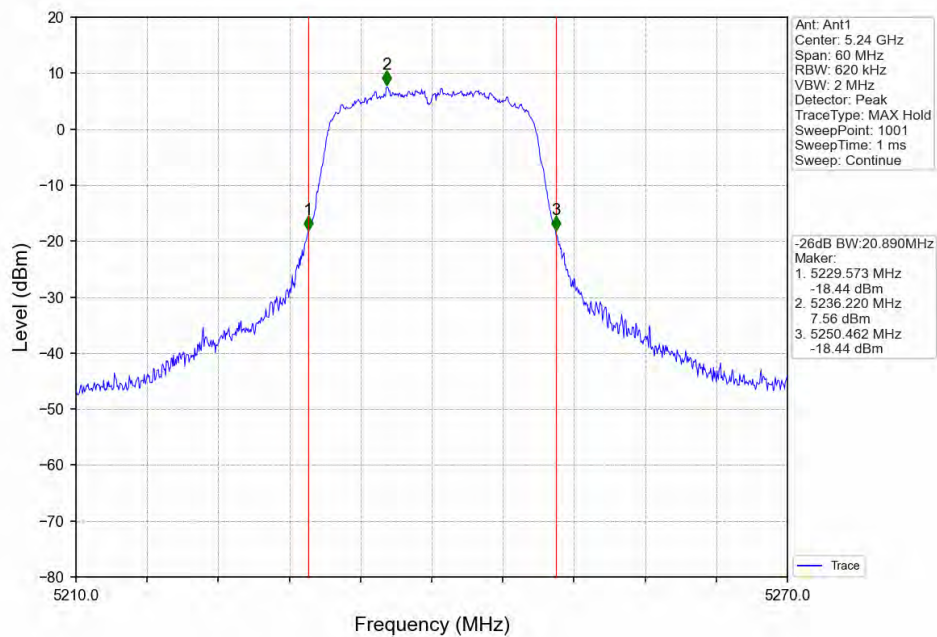
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



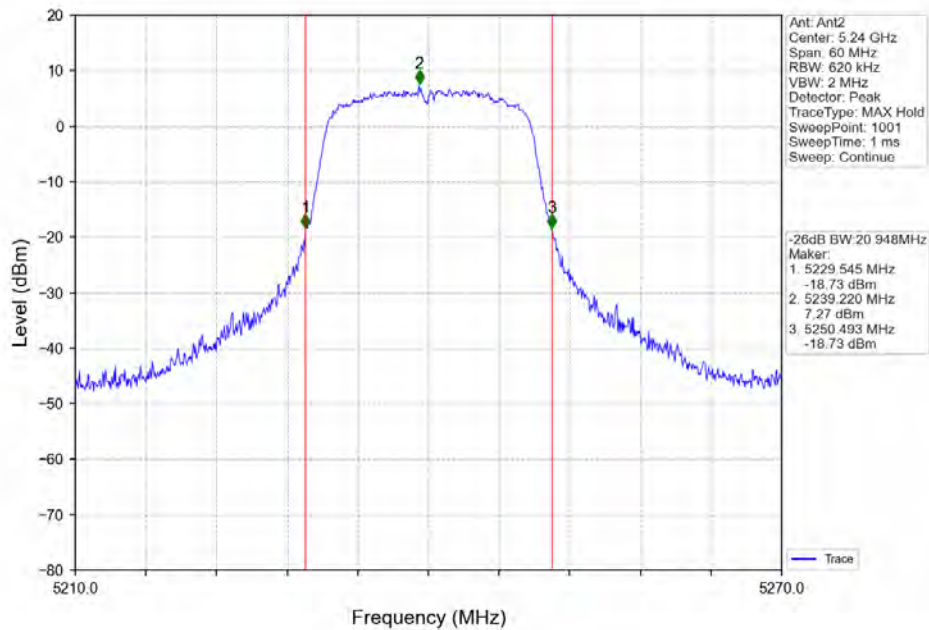
802.11n(HT20)\_MCH\_5200MHz\_Ant2\_NTNV



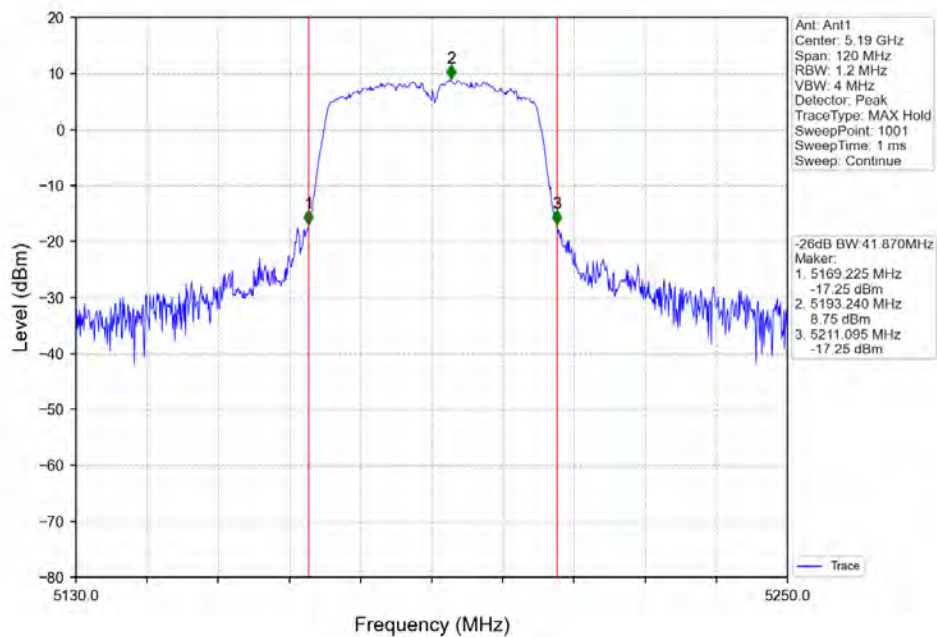
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



802.11n(HT20)\_HCH\_5240MHz\_Ant2\_NTNV

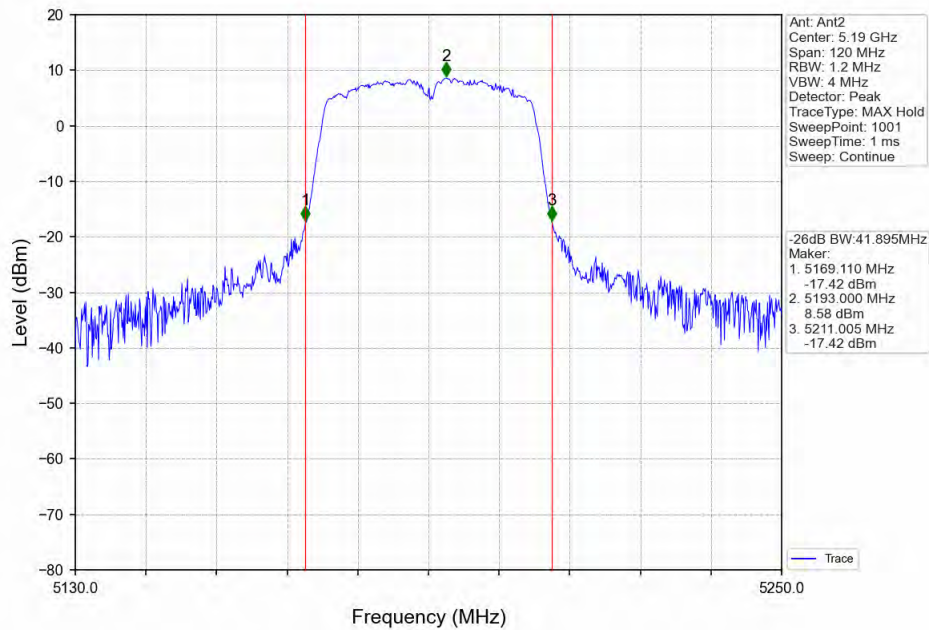


802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV

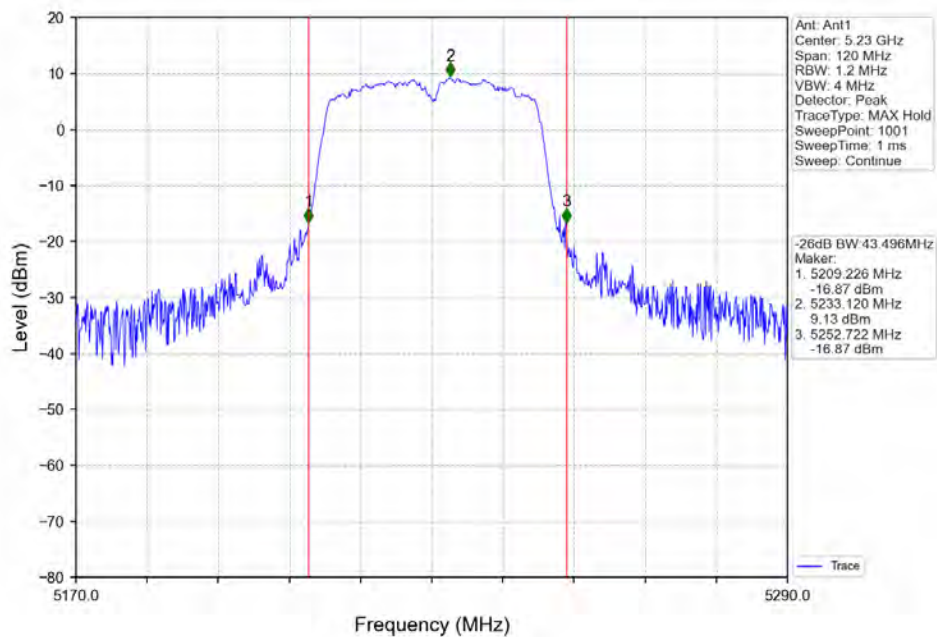




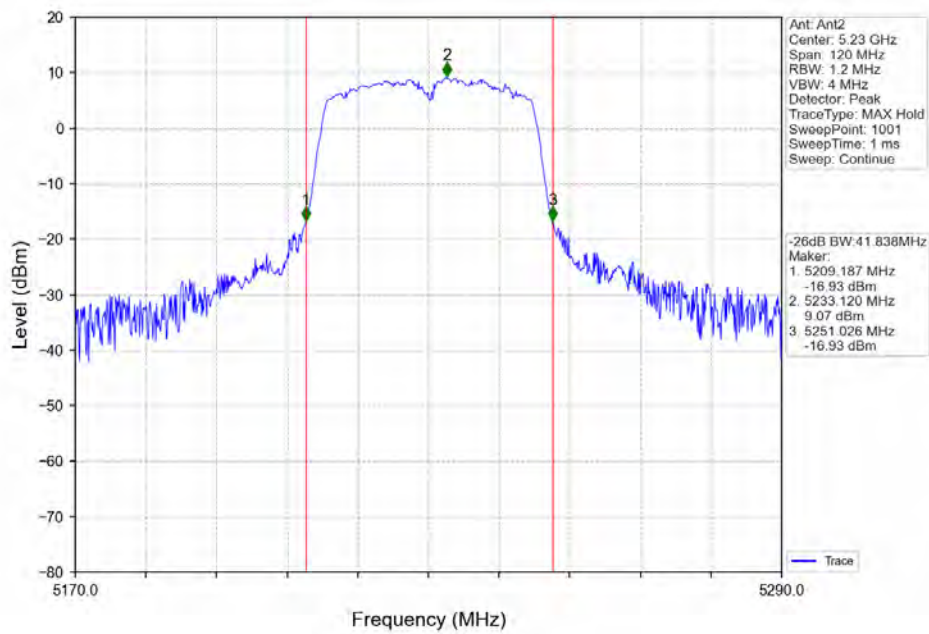
802.11n(HT40)\_LCH\_5190MHz\_Ant2\_NTNV



802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



802.11n(HT40)\_HCH\_5230MHz\_Ant2\_NTNV



802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

